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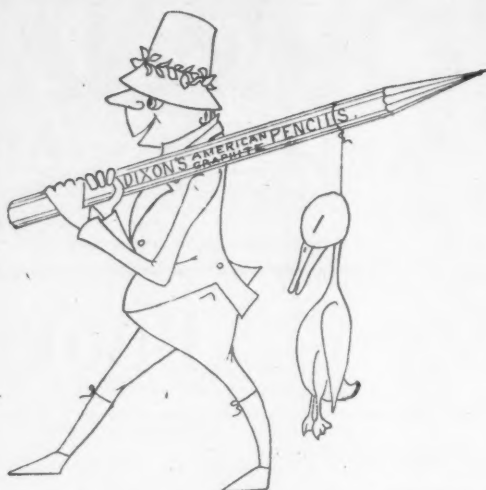
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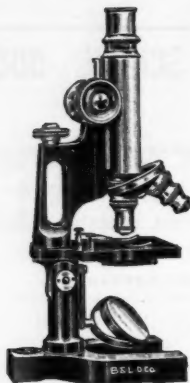
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Nineteen Hundred Eleven

Let us learn all we can this coming year. There never were such times for learning, and for applying every lesson as we get it.

The outlook is pretty good. Crops were very good this last year, take them all together. The Secretary of Agriculture computes that God gave agricultural increase to an amount closely approaching nine billion dollars' worth. That would be about a hundred dollars' worth of farm products for each one of us, which would go a long way if we didn't insist on taking too much of it out in eggs at winter prices, and Oregon apples. No doubt we shall raise enough to eat again this year, and some surplus to sell.

There is no hard thump due in business. We haven't been speculating and laying up repentances on that account. We are at peace with the world and likely to continue so. Living is very high, and we seem to require a great deal of it and of good quality, but there is a great deal to do and wages are good.

The difficulties ahead of us are difficulties of management and adjustment: industrial difficulties in adjustment of old enterprises to new laws; political difficulties in adjustment of old machines to new ideas and intentions. There never were so many new ideas loose in the world as now, but the world was never so well qualified to handle ideas. The temper of our people in the main is reasonable. There is no violent revolution in our air, but there is a great deal of patient pressure for improvement—for better administration of public affairs, better distribution of the products of labor, restriction of legislated privilege, carefuler guardianship and conservation of all public rights and properties. To attain to these good things we must work, and study, and learn at least enough to judge of the merits of expert advice, and follow it when it is good.—Harper's Weekly.

The Cuckoo's Habits

In April,
Come he will;
In May,
He sings all day;
In June,
He changes his tune;
In July,
He makes ready to fly;
In August,
Go he must.

—Old Rhyme.

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THE SCHOOL JOURNAL

A Monthly Journal of Education

OSSIAN LANG, Editor.

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March 1911

No. 7

Improvement from Without

Public opinion is, in America, the great shaping force of progress in all departments of government. In almost all. There are exceptions. Medical boards, for instance. The schools are not among the exceptions. Thru boards of education the voice of the people asserts itself in the local educational affairs.

The schools can be no worse than public opinion will tolerate. They can develop no further than public opinion permits. This may not be very complimentary to teachers. There are among them too many utterly lacking in professional spirit. Shoddy pedagogy is not distinguished by them from the genuine kind. Papers, books and speeches that flatter their self-sufficiency receive their unstinted support. However, the number of consecrated teachers is growing every year. They are the hope of the present for the future. When they shall have inherited the land, as they are bound to do, ultimately, the teacher's judgment in matters educational will have some weight with the people who pay the bills. Till then,—excepting a few localities where the millennium has already begun—the people will continue to lay down the requirements to be met by teachers.

The strong interest of the people in the schools is most desirable under all circumstances. Where the teachers have attained to professional recognition, the sympathetic co-operation of home and school and a lively communal interest in educational progress form an ideal condition for the achievement of the best obtainable results. Where the teachers, or many of them, are unskilled laborers, the increase of a local interest in the progress of the education of the young is the only thing that will save the schools from chilling altogether the native desire for learning, in the ambitious children. As a general rule it may be taken for granted that teachers of professional spirit abound where public opinion is most genuinely interested in the schools.

If an educational leader should attempt to wage his battles for the greater good of mankind with the aid of the teachers alone, he would in most cases fail altogether to accomplish any real results. Once let him win public opinion over to his side, and the teachers will be compelled, *nolens volens*, to rally around his banner.

While uninformed teachers still take time to debate the long-disposed-of question of corporal punishment in common schools, the people have, in State after State, recorded their disapproval upon the statute books. The proposition of a wider use of the schools as community centers was first presented to the teachers. The defenders among them of things as they be, found no end of objections. Once the public at large caught the idea, the whilom objectors were quickly won over, and in not a few instances admitted blushing that they had fathered the movement from the start. In Wisconsin the legislature has come forward with a law providing "that the citizens of any community shall have the right to the free use of public school-houses for the discussion of public questions, and for other civic, social, and recreational activities." That will end further objection there. Mighty is the people. Thank God!

Feeding and Clothing the Needy

One question to be solved soon will be the regulation of the proper nutrition of the children at school. Free education implies free tools to obtain it with. A clearer public estimate of equality of opportunity is beginning to support the contention that the child who is unfed, mal-fed, or under-fed is not getting from the education offered at school the benefit he might obtain if all conditions were right. The people cannot afford to have the money paid for education wasted. If the supply of simple, wholesome food can make the investment yield an appreciable profit, while the absence of it will mean unproductiveness or worse, there can be but one decision when the people once have their eyes opened. Quite a number of localities have already gone ahead with solutions more or less satisfactory to themselves. The thought is at work. That is the point.

Progress Blockers

Isn't it wonderful how much ingenuity the opponents of improvement will employ to establish the divinity of things as they are? The new must be proved wrong at any cost, and not infrequently the innovator is pictured to his generation as an enemy of society.

Take, for example, the proposition to supply

needy school children with food and clothing. The artillery which was brought into action to prevent the introduction of free text-books and other working tools is thundering away again. Here is the Lord's side; there are the destroyers of the foundations of society. The pleaders for the equalization of educational opportunities want to rob parents of the last vestige of responsibility forming the corner-stone of family existence.

Now look the facts in the face! Does every man love his wife more after the struggle for supplying the daily needs for those dependent upon him has become a cause for unceasing worry than he did when he wooed the betrothed of his heart and when he reveled in the sweetness of the honeymoon? Laboring for others is one thing, laboring hopelessly is quite another. Sharing the rewards of one's labor with one's dearest ones may yield pleasure and strengthen home ties; trying to make means of subsistence which are sufficient for one take care of several is not conducive to an increase of family consolidation. The child whose animal wants are supplied can contribute a greater share to the contentment of a family than a neglected, hungry, sickly one. The happy child may become an effective factor in promoting family solidification. Yet the strategists who seek to prevent the proper feeding and clothing of needy school children want to be hailed as the true friends of humanity!

Let the teachers beware of false witnesses. They above all others should uphold the leaders who are laboring for the greater happiness of humanity. Public opinion is bound to be won for the right in the end. And when public opinion has become united upon a line of action, it speaks with authority. It is not to the credit of teachers to wait for the command to believe in the right. They should be in the van and not in the rear. Many are there now: they are doing yeoman service for the development of an educational profession.

Jenny B. Merrill

Dr. Jenny B. Merrill retired, on February 1st, from public school service in New York City. For more than fourteen years she was director of kindergartens. Her work in the last years covered the Boroughs of Manhattan, the Bronx, and Richmond. She was beloved by all the kindergartners, and the children were all delighted to greet her. She possessed to a high degree the sympathetic and appreciative attitude toward the workers under her charge. Qualities like these might seem to be presupposed among supervisory offices in this particular field, but, alas, the possessor of them stands out as an angel of light. Miss Merrill had breadth of view enough to recognize the good in all forms of activity. Hers was the keen eye of the trained assayer, which recognizes the slightest trace of pure gold. Appreciative ability is the best asset a supervisor and director can have: it makes things grow.

Dr. Merrill has lived in New York City all her life. For forty years since her graduation from Normal College, she has been a teacher in the common school system. About thirty-four years ago she organized and taught the first public kindergarten in New York City. She was a student of education all her life. She became one of the first students of the School of Pedagogy of New York University, and earned the degree of Doctor of Pedagogy. She made kindergartners love their work and put their best selves into it. She encouraged originality and every effort to increase the well-being, the happiness, and the educational development of the little ones. The establishment of a closer connection between kindergartens and primary schools occupied her best attention. Her assistants were impressed, early and late, that education was something continuous, and must not be broken by artificial barriers such as are set up by the terms kindergarten, primary school, grammar school, high school and college. Dr. Merrill's work for the promotion of continuity has been of great benefit, not only to New York City, but to other communities. The best fruit, however, of her supervisorship has sprung from the sweetness of her disposition, her patience, her appreciativeness. May her health be spared for many years, to enjoy the freedom from exhausting responsibilities she has so well earned.

Teacher's Pensions in Massachusetts

The newly organized Massachusetts State Teachers' Federation had three representatives at the teachers' pension hearing, the Statehouse, Tuesday morning (February 21), in accordance with a resolution adopted at the first formal meeting of the association under its new constitution at Boston University, February 18. These delegates were the president of the Federation, Ernst Makechnie, West Somerville; W. I. Hamilton, New Bedford, and Henry H. Harris, Lowell. They were instructed to favor in a general way the pension bill offered by Senator Hibbard, of Lowell, but to urge as an amendment that the financing should be done thru the State and not by the individual cities and towns.

A strong sentiment developed at the meeting on February 18 in favor of concurrent agitation of a tenure of office act for teachers. At present, as the law has been interpreted in Massachusetts, the school board has the absolute right "to hire and fire," with no possibility of appeal from its decision. Something corresponding to the New Jersey tenure law was urged as a means of protecting teachers from being discharged shortly before becoming of pensionable age. Also that the new State Federation should not devote itself exclusively or even mainly to matters of salary increases and pensions, but should help to standardize and improve the quality of teaching.

Eight local teachers' associations have already joined the Federation. They represent more than 1,200 teachers.

Cheerful Confidences

The Devil Is a Cheerful Cuss

If we are talking confidentially, I do not see why I should have to be so choice with my words as to seem to be writing at you instead of talking with you. I am not up on a platform seeking to inspire respect for pure pedagogic English. I am thinking of things that bear more heavily upon the future of men and women than anything I ever heard discussed on any platform. I am thinking of the Devil, which in this day and generation is a convenient term with which to cover evil in general. The Devil is in the same business as you and I: the man and woman business. We are competitors. He and we are after the same material: boys and girls. In every other competitive business men study their rivals' methods and endeavor to improve on them. Have you been thinking much about any possible superiority the Devil may show over you in the matter of catching and keeping boys and girls?

Last Saturday I went to "The City," as we call the thirty-mile-away metropolis of our State. In the afternoon I saw a play. More than half the audience was made up of school-girls. The story was of an eccentric uncle who divided in his will his property between two nephews. One, a knowing resident of Paris, received little; the other, a simple country lad, was to have all the rest, provided he should have nothing to do with any woman until he was twenty-one. If he failed to fulfill these requirements the other nephew would have all the money. So the knowing one sought out a fascinating, loose woman whom everybody knew and set her after the simple country boy. That made the play. It was a captivating performance. The women were all pretty, the men were handsome. The music was catchy, the fun was hilarious; the place was bright and beautiful.

I was away from home where not a person knew me, and I sat the entire performance thru. For two hours I saw and heard the worst things that I and the teachers of these young girls stand against, presented in the most alluring form and applauded most heartily. It was the most effective teaching that I know of. It had music, art, brightness, fun, pleasure, and vociferous approval to keep it. If the manager had pursued the formal steps of pedagogy he would have appeared at the close of the performance and said, "Thus you see that innocence is stupid; purity of thought and life is dull; all the bright folks disregard it. It is great fun to sin and a most fascinating game to be about it." But he didn't need to say that. The teaching was so good that it made its point without any review.

This was not an unusually salacious play. For the past twenty years the dramatic offer-

ings in our town have been growing more immoral, more clever, more witty, more attractive. The youngsters attend in larger numbers and are better and better taught.

We have a couple of moving picture shows in our little city. They are inviting places. Color, form, music, and the social attraction of the new crowd help them to draw the children. They are so cheap that any schoolchild can attend. They give splendid lessons in crime, robberies, rapes, murders, seductions, violations of social virtues and everything that you and I entered our calling to oppose.

We have bookstores, here, too, that offer some of the most fascinating stories you can imagine, in which the women are luscious and the men delightfully adept in libertinism. We have postcards whose wording and whose pictures are within the law but such evident invitations to looseness that I cannot imagine anyone so stupid as to miss what they mean. It is hardly necessary to continue farther to remind you that there is a good deal of competition against us for the possession of the minds and hearts of the young folks. The thing I want to keep in my mind is the effective principles of teaching that the Devil employs and the indisputable fact that he is beating us at the game. I don't say that lightly. I have been reading the census reports. I can't by any pumping up of optimism obscure the fact that most of the vice and crime is that of juveniles; that juvenile vice and crime is more per capita than it was in 1890, almost 20 per cent greater per thousand. For anyone to say the world is getting better every day is as wise an observation as to claim that the cost of living is decreasing all the time. It is an ostrich remark, pure and simple. I do not propound this as a despairing outburst. Not a bit. I express it because it is a part of the knowledge it is necessary for you and me to have in order that the things we have set out to do may be more successfully accomplished.

Nothing, to my mind, can more plainly show that there is a need of a reform of public teaching. I believe the reason why the Devil is catching so many of our boys and girls is because he is such a clever and cheerful cuss. Almost every kind of thing that is attractive to the young folks is employed by him: music, sociability, laughter and variety; pleasure, interest, beauty, and politeness; life, noise, vivacity, and wit: almost everything that youthful instinct seeks, that ingenious old cuss has taken. All the punishment and pain and disappointment that you and I know belong to vice and sin he keeps off in the background. He has, in many ways, distinctly the advantage of us. He appeals to the instinct of youth, we are not remarkably strong in that. Our own notions, our course of study, our organization,

our rules, our system have counted for more with us than any consideration of whether we meet the desires of youth.

Our punishments and reprimands have been too prominent. If one should use the phrase "corrector of youth," the ordinary man would know that it meant one of us. This is a loss of power. Young men are not especially attracted by correctors. We constitute a type, but it is not in general an attractive one. That is a weakness. If we are to compete with the Devil we have got to be more engaging persons than the average teacher type has yet become. We count too much upon compulsion. Satan has no State enactments requiring young girls to attend smutty plays. They go because there is enjoyment there. In those grades of school unaffected by compulsory attendance there is but one youth enrolled to 87 of the same age not in school. Allurement is lacking. It is not yet common for boys to cry "Hurrah! to-morrow is Monday." It is not yet the fashion for teachers to oppose the vacations which all day Saturday and Sunday, or thru the summer months, keep them away from business that they love.

The theatrical manager makes a big time of "First Night." We put our hilarity into the "Last Day of School." The saloon in our block has a gala opening. We have our rejoicing at closing exercises. All up and down, education is smeared with this negative quality, this forbidding influence which persists in spite of a hundred Froebels, Parkers, and Hendricks. Sad-eyed sisters of sorrow reprove the laughter in their classrooms. Dreary drudges deem dignity the most meritorious mark of a schoolmaster. Land of Love, was ever a live lad lured from sin by dignity?

Here is a conscientious woman writing me in defense of "Burke's Conciliation" as a school classic with which she had to struggle five years before she could make a go of it. The sixth year she found to her surprise the pupils liking it. A boy whose only interest in the world was in horses suddenly began to ask and to answer questions. "How did it happen?" she asked him. "First thing I ever struck that had sense to it," he answered; and she knew she had found a way of teaching Burke. Every teachers' convention abounds in anecdotes like that and every conscientious teacher applauds that kind of story.

Fiddle-de-dee! High schools are not for teaching Burke; they are for helping boys become men. Any man knows that Burke never woke that boy up; it was the woman's interest in him. If during her five years' struggle with Burke she had tried books that catch upon boys' interests she would have had them asking and answering questions the first day. Of all the things to use in competition with off-color novels, gay-life dramas and lively school fraternities. Brother Burke, his work, is one of the last things you would choose unless your judgment is completely standardized.

What you want to do is to break your shell

of school traditions and think a little with your own God-given brains. There is no pleasure in store for you in teaching such as comes from money, fame, or power, not the slightest chance in the world. Cut out any shadowy hope of it. There is the greatest joy that life can give, and it is ready to your hand if you will earn it. This joy is, viz. namely and to wit: That you are gardening the greatest things in the world—virtues, excellences, superiorities, powers. Don't for a moment believe that you are doing this by the current methods of teaching. They are wooden, they are obsolete, they are sapless, they are founded on anything but children's instincts. They are generating dolts, non-thinkers, imitators, weaklings. They are cultivating no taste for good things in literature, art, government, or morals.

We have made the stupendous blunder of believing that a child can be won and molded by a machine, a system. You, yourself, are the biggest school force which can educate children. You cannot do it until you stop mechanizing and begin caring more whole-heartedly for John, Mary, and Sue. Never mind your dignity. Never mind yourself. Never mind your school and your system. It's a clog upon the service of teachers to-day. You are the solution of the problem. Your competitor is the Devil. Take his bait away from him. Tell funny stories. They tell dirty ones in saloons, but they are witty as can be. Don't let him have the dancing and the acting and the music.

Put the festival in the school, sister, it's fun. Fun is attractive. It belongs with the young. Kittens have it. Katie is-but a kitten. "Things are stirring in her which she does not understand. Her little head is whirling with romance. Her young body is waking into life. It is springtime for Katie." Nature has designed her for joy, and all your good New England conscience never did and never can obliterate that fact. You can drive her out of school, away from the cleanest associations she has, and then—God help her!

Fun and pleasure are as necessary for the building of a woman as is bread. The laughter of youth makes the latent power of maturity. If you did nothing more in your whole school than dance and sing and play and observe gentle courtesy toward one another and maintain the place as an attractive resort without evil, you would not have worked in vain; for let a girl be happy and contented for a period, Satan has no charms for her. But you do not need to run a playhouse. Mix more fun and pleasure into what you're doing now.

Cut out more of the drudgery: marking papers, for instance. You have no one now to blame for that. Superintendents have been preaching against it for ten years. Quit it. The sinful people who set snares for youth do not reduce their magnetism by marking papers. What you want is more joy in life yourself. Sad-faced martyrs are not good competitors with Satan. Let us have more merry maid-

ens, bright and clear-eyed, attractive to the girls in their classes. Give us more merry men, full of humor, clear-minded and lively. Stop pounding school athletics. Their net influence is worth more for unsullied manhood than all the grammar in christendom. The main thing is to get all the children interested and to let them feel that all of our things are fine, delicious, adorable, superb. If our school things are not that, they stand self-condemned and must be supplanted with such things as are lovely or the game is up, and Mr. Devil, the smiler, the coxer, the altogether charming, will go on attracting to his vileness and his death the brightest, gayest, liveliest of our children, leaving us the anæmic little bad-breathed, pimply bookworms, the perpetual disgrace of education.

THE CHEERFUL CONFIDANT.

In Little Boy Land

Oh! Green are the meadows in Little Boy Land,
And blue are the skies bending over,
And golden the butterflies flitting about
To visit the pink and white clover.
There are cool, running brooks where the cows like to stand,
And milky-white lambkins in Little Boy Land.

Oh! Down at the corner in Little Boy Land
Is the prettiest shop full of candy,
And a dear little woman to give it away—
It's ever and ever so handy.
There are chocolate creams which the boys say are
"grand,"
And nothing costs money in Little Boy Land.

Oh! Strange as it seems, there are no chores to do,
No errands to run for mother,
And nothing to do but forever to play
First one jolly game, then another.

There's a beautiful circus and a lovely brass band,
And everything's free in Little Boy Land,
Oh! They say they do nothing in Little Boy Land
But play thru the warm sunny weather,
And play thru the winter;—Oh! then it's fun
To slide down the long hills together.
There's no school to go to,—now, please understand
It's all play and laughter in Little Boy Land.

Oh! There's bicycles, tricycles, wagons and sleds,
And donkeys and ponies by dozens;
So each little fellow can ride if he will—
Each one of his brothers and cousins.
There's fun and there's frolic on every hand—
Oh! Who wouldn't like it in Little Boy Land?

Oh! Who wouldn't long for this Little Boy Land,
Where there's fun going on every minute,
And candy for nothing, and peanuts the same,
And a good time with everyone in it?
Oh! Grown-ups, with trials and hardships to stand,
Let's journey together to Little Boy Land!
—HARRIET FRANCENE CROCKER, in *Puck*.

Betsy's Battle Flag

The first American flag was made by Betsy Ross and presented to George Washington.

From dusk till dawn the livelong night
She kept the tallow dips alight,
And fast her nimble fingers flew
To sew the stars upon the blue.
With weary eyes and aching head
She stitched the stripes of white and red,
And when the day came, up the stair
Complete across a carven chair
Hung Betsy's battle flag.

Like shadows in the evening gray
The Continentals filed away,
With broken boots and ragged coats,
But hoarse defiance in their throats;
They bore the marks of want and cold,
And some were lame and some were old,
And some with wounds untended bled,
But floating bravely overhead
Was Betsy's battle flag.

When fell the battle's leaden rain,
The soldier hushed his moans of pain
And raised his dying head to see
King George's troopers turn and flee.
Their charging columns reeled and broke,
And vanished in the rolling swoke
Before the glory of the stars,
The snowy stripes, and scarlet bars
Of Betsy's battle flag.

The simple stone of Betsy Ross
Is covered now with mold and moss,
But still her deathless banner flies,
And keeps the color of the skies.
A nation thrills, a nation bleeds,
A nation follows where it leads,
And every man is proud to yield
His life upon a crimson field
For Betsy's battle flag!

—MINNA IRVING, in *Munsey's Magazine*.

And many an eye has danced to see that banner in the sky.—*Holmes*.

Having learned to stand by the flag, we may learn to stand by what the flag symbolizes; to stand up for equal rights, universal freedom, for justice to all, for a true republic.—*Clarke*.

There are two things the American people reverence. First, their God, and second, their flag. A word against either will bring down condemnation.—*Wheeler*.

I have seen the glories of art and architecture, and mountain and river; I have seen the sunset on Jungfrau, and the full moon rise over Mount Blanc; but fairest vision on which these eyes ever looked was the flag of my country in a foreign land.—*Hoar*.

The starry banner speaks for itself. Its mute eloquence needs no aid to interpret its significance. Fidelity to the Union blazes from its stars, allegiance to the government beneath which we live is wrapped in its folds.—*Hale*.

How To Teach Geography

By L. V. ARNOLD

The particular method used must be agreeable to the teacher, and the teacher agreeable to the method. The two must harmonize; each has a temperament. The most used methods are:

The text-book method, which is, in large part, a dialogue between teacher and pupil. This method trains the memory to the exclusion of all the other faculties.

The cramming method, in which the passing of examination is held up as the chief aim of the work. The pupil is likened to a reservoir into which fact after fact is stored, with the expectation that at the proper moment all will be released. When the store is released, however, it is discovered that much has been lost by evaporation.

The analytic and synthetic method, which proceed from the group to the individual, and vice versa, respectively.

The deductive method, which accepts the laws governing groups and passes them to the particular.

The laboratory method, in which the pupil illustrates his knowledge by maps, crayon, sand, or diagrams, or verifies his knowledge by a collection of pictures. Maps may be varied, and made to include sand, composition, putty, progressive, detail, and product. Product charts on which is written in their respective positions the particular products are also instructive and interesting, and are perhaps fully as satisfactory as the true product map. Real trips, perhaps not more than an hour long, possibly for an afternoon, are productive of much good when they are conducted with a definite aim. Especially in beginning geography are these trips important.

Humboldt says in his *Kosmos*, "Every little nook and shaded corner is but the reflection of the whole of Nature." This suggests the study in detail of the surroundings of the pupil. Imaginary trips allow freedom and liberty of thought, and may be an aid in composition. The type idea is really a part of the laboratory method. The value of the type lesson lies in its fruitful content. It furnishes striking representation for many similar objects and parallel conditions.

The topic method, which requires a comparison on every point. It necessitates a high degree of proficiency in map visualization. The comparative work broadens the mind and develops ideas in a logical order. The advocates of the last two methods are, perhaps, about equally balanced. Disciples of each method may well claim the following advantages:

It meets a hearty reception by both teachers and pupils, as the mind and body work together. Notebook making, paper-cutting, and searching

for the data required, serve as an exhaust for pent-up boyish energy.

It requires strenuous exercise of the pupil's mind. No mental memory gymnastics are required, but a good, healthy, logical development of the reason. The topical method causes the pupils to think for themselves, and gives good training in expression, because they read, and because they talk. It also encourages good literature reading among the pupils.

It requires a certain breadth of preparation by both teacher and pupil. It calls for correlation of subjects and shows the interdependence of Geography with History, etc.

It does not aim directly at preparing pupils to pass an examination, but they are best prepared who have a stable foundation and solid framework around which to arrange their ideas. The laboratory and topical methods erect such a structure.

The celebrated German philosopher, Johann Gottfried von Herder, wrote, nearly two hundred years ago, "History is nothing but the geography of the time and peoples set in motion. Whoever studies one without the other understands neither, and whoever despises both should live like the mole, not on, but under, the earth."

Doubtless in opening the formal discussions of a topic, the giving or development of a definition of the object to be discussed is the usual method. Definitions should be simple and within the pupil's comprehension. The best definitions are not those learned *verbatim* from the text or dictionary, but those germinated and born in the pupil's mind, and expressed in his own language. This formal opening of the discussion should lead very shortly to informality on the part of the pupil. The recitation belongs to the pupil, the study period to the teacher.

During the recitation the teacher should act as a guide to see that the pupil does not bring into the discussion those items that are foreign to the recitation. The expressions should, however, be voluntary, expressed in their own language, and colored with their own experiences. A little indulgence on the teacher's part in these personal touches will add spice and pungency to the recitation.

The blackboard is the chief assistant to the teacher.

The rapid free-hand maps and illustrations count for much. Generally the rapid strokes produce a far better proportioned result than the short, slow, laborious ones. As a rule, when work at the board is assigned all the sections should be occupied. All the pupils may or may not be doing the same work. This economizes the time of the class, and produces an abundance of material for criticism and discussion.

Great Traffic Routes

II. The Erie Canal

By JACQUES W. REDWAY, F.R.G.S.

The canal as ordinarily understood was neither a novelty nor an experiment, at the time when public clamor was calling for the construction of the Erie Canal. The Royal Canal of Babylon antedated it by nearly three thousand years, and was a vastly more difficult undertaking. The Grand Canal of China was more than five hundred years old. The rivers of Europe were pretty well canalized and the traffic on them was very great.

The invention of the canal lock in Italy about 1480 had made the problem of crossing the divide between river systems vastly easier than it had been before, and had been followed in time by extensive canal construction. By the middle of the eighteenth century the southern part of England was so well supplied with canals that no part of the state was more than fifteen or twenty miles from navigable water. It is not surprising, therefore, that the matter of canal construction was in the air in the United States.

The report of Secretary Gallatin, noted in a previous paper, aroused quite as much enthusiasm in New York as in Pennsylvania. The Congress was flooded with appeals for money for different canal projects. One Congressman, in a private letter, said: "Of all the shame-faced beggars who beseech the Congress for aid in canal-building schemes, the New Yorkers are the sturdiest." Then came a time when the "sturdy beggars of New York" promptly quit asking Federal aid. The Union Canal Company of Pennsylvania obtained an extension to its charter empowering it to construct a canal from the Susquehanna River to Lake Erie.

This was a sting which the New Yorkers could not stand. To add to the irritation the Congress declared that it had no right to grant either land or money for the purpose of building canals. The commissioners were privately advised to go home and to quit asking the Congress for Federal aid. They went. Incidentally it is worth the while to know these "shame-faced and sturdy beggars," as they were thus classed by a Pennsylvanian. Their names are: Gouverneur Morris, Stephen Van Rensselaer, DeWitt Clinton, Simeon DeWitt, William North, Thomas Eddy, Peter B. Porter, Robert Livingston, and Robert Fulton. They recommended the State to borrow money abroad and to lose no time in getting it.

The War of 1812, however, interrupted the question of financing the work.

Even at this time General Washington's prediction had come true. The route from Lake

Erie to tidewater had become a great trade route. From Albany to Schenectady a good turnpike had been built. By this means the falls and rapids at the mouth of the Mohawk were avoided, and about a dozen miles in distance were saved. At Schenectady the freight was transferred to boats. Some of these were of cutter shape and were known as "battoes"; others were shallow scows, called "Schenectady boats." The battoe could handle about three thousand pounds of freight; the scow carried, according to the stage of water, from three to ten tons.

At Little Falls there were rapids and falls, in all, forty-five feet. At first they were circumvented by a wagon road; but in 1793 a canal and locks were constructed. Utica, a few miles beyond, was a thriving town of about one thousand people. There the goods were sorted and distributed; most of the freight, however, went to the salt works near the present site of Syracuse; from Utica to Rome, and thence to Wood Creek by canal and down the creek the route lay to Oneida Lake. From Oneida Lake the traffic went to the junction of Seneca River. Thence it followed Seneca River and Slough to the salt works, or down Oswego River to Oswego, where it was transhipped to schooners and carried to Lewiston, along Lake Ontario. Most of this freight went around Niagara Falls by wagons to old Fort Le Boeuf, and by battoe to Pittsburg. At this time Buffalo was an insignificant village, the scorn of its competitor, Black Rock. But in time a treacherous swirl in the current sealed the fate of Black Rock, and the latter is now buried in the heart of its rival.

The shame-faced and sturdy beggars did their work well, and, by the close of the war, New York was ready to act. A new commission was appointed, of which DeWitt Clinton and Stephen Van Rensselaer, of the old commission, were members. The "act respecting navigable communication between the Great Lakes and the Atlantic Ocean" became a law April 15, 1817. It authorized the commission to construct the section of the canal to connect the Mohawk and Seneca Rivers, and also a canal to join Hudson River and Lake Champlain.

Perhaps the methods of raising money might not now stand the strict test of the law. A quarter of a million dollars was to be raised by taxing the farms along the routes within twenty-five miles of them. A tax of twelve and one-half cents was imposed on every bushel of

salt made in the vicinity. Passengers on the Hudson River boats were taxed one dollar for a hundred-mile trip, but if the trip did not exceed thirty miles the passenger was let down more easily for fifty cents. The profits on all lotteries, and certain commissions on auction sales, were also turned into the canal fund. Even the State prison inmates were not forgotten; they were allowed to do the work of digging.

Ground was broken at Rome, July 4th. Eight years were required to complete the work. In June, 1825, the waters of Lake Erie were let thru the gates at Black Rock; and in October following the canal was open from end to end. In honor of the event a fleet of boats, headed by the *Seneca Chief*, started from Buffalo to New York, bearing two kegs of water. The procession of boats was greeted by thousands along the route; and at Sandy Hook Governor Clinton poured the water from the kegs into the sea.

The effect of the canal on freight rates was noticeable at once. Before the opening of the canal the rate on a bushel of wheat from Buffalo to New York City was \$1.10; immediately afterward it was forty cents! Within a very few months this rate was materially lowered. Freight which paid five dollars per ton, from points in Ohio to Philadelphia, could be sent by the Erie Canal for one-half the rate.

The completion of the canal marked the beginning of a new era in long-distance hauls. Ground was broken for the Ohio and Lake Erie Canal on the following Fourth of July. The Delaware and Hudson, and the Delaware and Chesapeake canals were also built very shortly afterward.

All New York and New England were benefited by the opening of the new trade route, but Philadelphia suffered thereby. Vessels from European ports to New York City could pretty safely count on a return cargo, but at Philadelphia they could return with nothing but ballast for the greater part. New York City, therefore, grew by leaps and bounds. The warehouses of Buffalo were filled with salt, household furniture, and country-store merchandise bound West; and with grain, fur pelts, and lumber to go East. Within a very few months from the opening the receipts from tolls were materially greater than the interest and fixed charges.

Not only was the canal a "freighter," it was a "packet line" as well. It was the "short line" between New York and Buffalo—likewise to the West. A traveler from New York City took the Hudson River boat to Albany, whence a stage ride of three hours brought him to Schenectady. There the packet service began. Leaving Albany at about four in the morning, or three in the afternoon, he reached Given's Hotel at Schenectady in time for a breakfast or a supper sufficient in quantity, but doubtful as to quality.

At the sound of a posthorn there was a grand rush from the hotel to the boat. The latter was eighty feet or more in length. A housing which extended above the upper deck inclosed a long salon, and this room was a combination of cabin, dining-room, and sleeping-room. Forward the salon was the "ladies' cabin"; aft the cabin was a much more important feature—the bar. The cook's galley and the quarters of the crew were clear aft, where also were stalls for the horses not on the towpath.

The roof of the packet was floored over and made weather-tight, so that it could be used as a promenade-deck. Promenading, however, was beset with certain difficulties, one of which was the steersman's warning, "Low bridge!" At this call one had the choice of struggling down the gangway with the crowd, at the last moment, lying flat on the deck, or risking a jump to the shore.

Walking along the towpath was the favorite recreation, and as the boat rubbed against the shore frequently, to go ashore was not difficult. To board the packet was a still easier matter. Those afoot merely walked along to the nearest bridge and jumped to the promenade-deck as the boat passed under the bridge.

About eleven o'clock the salon was cleared, and the long table set for dinner. Then, at the first clang of the bell, there was a rush almost like that of a mob bent upon a lynching. The captain usually "carved" and the various articles of food were "passed around." The last man in the line had occasional ground for complaint, but this merely stimulated him to look out for himself at the next meal. It was not considered bad form to dine without the formality of coat and waistcoat, in summer; neither did one lose social caste by using the table-knife as a shovel.

Promptly at nine in the evening the salon was again cleared and the stewards entered with the sleeping-berths. These were wooden frames covered with canvas. One side of the berth was set in sockets in the side-wall of the cabin; the other was fastened to a rope or a stanchion hung from the ceiling. A "section" had one great advantage over the arrangement in Pullman cars: there were three berths instead of two.

Three horses drew the boat at the furious speed of four miles an hour. The schedule time between Schenectady and Utica was twenty-four hours. At Utica all changed to the Lockport packet; and at Lockport one took the stage to Buffalo, or to Niagara Falls. From Albany to Buffalo the time was four days. Possibly the passengers who now patronize the Empire State Express might not relish going back to the method of transit in 1826, but the latter was far more speedy and infinitely more comfortable than anything that preceded it.

Indeed, the Erie Canal was the beginning—not only of the Empire State, but of the commercial United States.

Memory Gems for March

(Saturdays and Sundays omitted)

MARCH 1

'Tis He who made the mountain,
And made the bird to fly,
The good and heavenly Father,
Who holdeth up the sky.

MARCH 2

God in heaven each name can tell;
Knows thee, too, and loves thee well.

MARCH 3

Nothing so small, or hidden so well,
That God will not find it, and very soon tell
His sun where to shine, and His rain where
to go,
To help them to grow!

MARCH 6

Hear us thank Thee, kindest Friend,
For the springtime Thou dost send;
For the warm sunshine and rain,
For the birds that sing again.

MARCH 7

He sends the snow in winter,
And warmth to swell the grain,
The breezes and the sunshine,
And soft, refreshing rain.

MARCH 8

There is ever a song somewhere, my dear,
Be the skies above dark or fair,
There is ever a song that our hearts may
hear—
There is ever a song somewhere!

MARCH 9

Daffodils! daffodils, say, do you hear?—
Summer is coming! and springtime is here!

MARCH 10

Sing little songs, O heart so true,
Sing, for the world has need of you.

MARCH 13

Thanks to the sunshine, thanks to the rain,
Little white lily is happy again.

MARCH 14

The birds must know. Who wisely sings
Will sing as they.

MARCH 15

Oh, it is excellent
To have a giant's strength; but it is tyrannous
To use it like a giant.

MARCH 16

If you get simple beauty, and naught else,
You get about the best thing God invents.

MARCH 17

Little anemone,
Great is thy part;
By thy silence and faith
Thou may lessons impart.

MARCH 20

When the wild brooks begin to leap,
And out of the earth the mosses creep;
When swallows twitter, and robins call,—
Spring is the very best time of all.

MARCH 21

He prayeth best who loveth best
All things, both great and small;
For the dear God who loveth us,
He made and loveth all.

MARCH 22

Ah! Life were worth living, with this for the
watchword,
"Look up, out and forward, and each lend a
hand!"

MARCH 23

To have willing feet,
A smile that is sweet,
A kind, pleasant word for all that you meet,
That's what it is to be helpful!

MARCH 24

A raindrop is a little thing,
But on the thirsty ground,
It helps to make the flowers of spring
And beauty spread around.

MARCH 27

He either fears his fate too much,
Or his deserts are small,
That dares not put it to the touch,
To gain or lose it all.

MARCH 28

To thine own self be true,
And it must follow, as the night the day,
Thou canst not then be false to any man.

MARCH 29

Who means to help must still support the load.

MARCH 30

Nature sings to me forever,
Earnest listener I:
State for state, with all attendants—
Who would change? Not I.

MARCH 31

O beautiful world of green!
When bluebirds carol clear,
And rills outleap,
And new buds peep,
And the soft sky seems more near.

Ethics Thru Literature*

By HARRIET E. PEET, State Normal School, Salem, Massachusetts

Courtesy

The study of courtesy as a virtue may be approached either from the standpoint of kindness and sympathy or as an outgrowth of chivalry. Both approaches have their value. Courtesy as kindness has for its motto, "Put yourself in his place," and without special attention to rules and etiquette would say, "Do what the heart dictates." It is a virtue closely allied to unselfishness, for the kind person makes no differentiation between the pronouns *thee* and *me*. What is your interest is his. He sees no difference and would, therefore, do for you what he would do for himself. His feeling is reverence for others. His creed the protection of the rights of all persons. The message of chivalry, on the other hand, is a conscious observation of certain hereditary customs,—the raising of a hat to a woman; giving precedence to the aged on all occasions; refraining from unkind language; and otherwise observing customs which show reverence for others.

The best lesson in courtesy, whether the subject is considered as natural kindness or forms of chivalry, is, of course, that of example. A teacher with a low voice and pleasant manners, who habitually considers the needs and desires of her children, will teach far more courtesy than a powerful teacher who gives a set lesson on courtesy, but who herself forgets that a child's personality should be considered with the same reverence as that of a grown person. We must treat children with respect and courtesy, if we in turn expect to inculcate courtesy in them. We sometimes fail to see the inconsistency and humor in remarks similar to that of the young woman who said if she couldn't get courtesy in her own household she would throw things until she did!

In this present study of courtesy the work will be divided into two sections, courtesy as kindness, and courtesy as chivalry. As material for the first, the familiar story of the King of the Golden River has been chosen, for little Gluck is always guided by kindness. He is unaffected, simple and tender, and the outcome is not a form of courtesy which tends to tongue-smoothness and hypocrisy, but to that genuine kind that comes straight from the heart.

Part One—Courtesy as Kindness

QUESTIONS FOR DISCUSSION

Who is more courteous, a man visiting in the country who shows city manners, or one who

takes off his coat and eats in his shirt-sleeves with the country folks? Why?

Who has finer manners, a person who is too proud to speak to a ragged companion, or one who is all the more kind to him on account of his raggedness? Why?

What is meant by courtesy?

Can a selfish person be truly courteous? Why, or why not?

THE KING OF THE GOLDEN RIVER

Summary of Story.—Among high mountains lay a valley so rich and luxurious that it was called Treasure Valley. In it lived three brothers, the two elder of whom were so cruel and selfish that they allowed the poor to starve at their very door, but of whom the youngest, called Gluck, was kind and good. After many years of prosperity in the valley, during which the brothers grew richer and richer, two strange little men came to visit them. The first was Southwest Wind, Esquire, with whom Gluck shared his supper, altho he knew his brothers would beat him for it, but toward whom the elder men showed great contempt. They turned him out of doors in the wind and rain.

As the result of the treatment which he had received, Southwest Wind sent such a storm that the wealth of the brothers was scattered and Treasure Valley changed to a desert. The brothers found it necessary to leave this home and earn their living in a new way. They turned goldsmiths, because the two elder ones thought it a good knaves' trade. It was then that the second of the two strange men made his appearance.

Among Gluck's possessions was a gold and silver mug, with the face of a fierce little man carved upon it. The two elder brothers threw this into the melting-pot one day and left Gluck to watch it while they went to a tavern to drink. Gluck stood by a window overlooking the mountain upon which was a waterfall that looked like gold in the sunlight. Gluck was just wishing that it was gold when he heard a voice.

Gluck looked about and tried to discover from what direction the voice came. Finally he went to the crucible in which the melted mug lay. From the crucible came a voice which said, "I'm too hot. Pour me out." This the astonished Gluck did, but as he poured out there came—not a stream of metal, but a little dwarf.

The dwarf stretched himself and then told Gluck he was the King of the Golden River, and that whoever would go to the top of the mountain and pour three drops of holy water into the stream which Gluck had been watching, for him it would turn to gold, but that anyone failing in the first attempt would never have another opportunity. With that the little dwarf disappeared up the chimney, and the two brothers returned home, both savagely drunk.

When the two brothers heard Gluck's story of the

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disappearance of the mug, they first beat him and then fell to fighting over the first chance of turning the river to gold. The noise of the fight attracted a constable. Hans, the elder, managed to escape, but Schwartz, the younger, was put into prison. The next day Hans stole some holy water and, passing by Schwartz' prison window, jeered at him, and then ascended the mountain; but he did not return. Schwartz then tried.

SCHWARTZ' TRIP UP THE MOUNTAIN

Poor little Gluck waited very anxiously alone in the house for Hans' return. Finding he did not come back, he was terribly frightened, and went and told Schwartz in the prison all that had happened. Then Schwartz was very much pleased, and said that Hans must certainly have been turned into a black stone, and he should have all the gold to himself. But Gluck was very sorry, and cried all night. When he got up in the morning there was no bread in the house, nor any money; so Gluck went and hired himself to another goldsmith, and he worked so hard, and so neatly, and so long every day that he soon got money enough together to pay his brother's fine, and he went and gave it all to Schwartz, and Schwartz got out of prison. Then Schwartz was quite pleased, and said he should have some of the gold of the river. But Gluck only begged he would go and see what had become of Hans.

Now, when Schwartz had heard that Hans had stolen the holy water, he thought to himself that such a proceeding might not be considered altogether correct by the King of the Golden River, and determined to manage matters better. So he took some more of Gluck's money, and went to a bad priest, who gave him some holy water very readily for it. Then Schwartz was sure it was all quite right. So Schwartz got up early in the morning, before the sun rose, and took some bread and wine in a basket, and put his holy water in a flask, and set off for the mountains. Like his brother, he was much surprised at the sight of the glacier, and had great difficulty in crossing it, even after leaving his basket behind him. The day was cloudless, but not bright; a heavy purple haze was hanging over the sky, and the hills looked lowering and gloomy. And as Schwartz climbed the steep rock path, thirst came upon him; as it had upon his brother, until he lifted his flask to his lips to drink. Then he saw the fair child lying near him on the rocks, and it cried to him, and moaned for water.

"Water, indeed," said Schwartz; "I haven't half enough for myself," and passed on. And as he went he thought that the sunbeams grew more dim, and he saw a low bank of black clouds rising out of the west; and when he had climbed for another hour the thirst overcame him again, and he would have drunk. Then he saw the old man lying before him on the path, and heard him cry out for water. "Water, indeed," said Schwartz; "I haven't half enough for myself," and on he went.

Then again the light seemed to fade from before his eyes, and he looked up, and, behold, a mist, of the color of blood, had come over the sun; and the bank of black cloud had risen very high, and its edges were tossing and tumbling like the waves of the angry sea. And they cast long shadows, which flickered over Schwartz's path.

Then Schwartz climbed for another hour, and again his thirst returned; and as he lifted his flask to his lips, he thought he saw his brother Hans lying exhausted on the path before him, and, as he gazed, the figure stretched its arms to him, and cried for water. "Ha, ha," laughed Schwartz, "are you there? Remember the prison bars, my boy! Water, indeed! Do you suppose I carried it all the way up here for *you*?" And he strode over the figure; yet, as he passed, he thought he saw a strange expression of mockery about its lips. And, when he had gone a few rods farther, he looked back; but the figure was not there.

And a sudden horror came over Schwartz, he knew not why; but the thirst for gold prevailed over his fear, and he rushed on. And the bank of black cloud rose to the zenith, and out of it came bursts of spiry lightning, and waves of darkness seemed to heave and float between their flashes, over the whole heavens. And the sky where the sun was setting was all level, and like a lake of blood; and a strong wind came out of the sky, tearing its crimson clouds into fragments, and scattering them far into the darkness. And when Schwartz stood by the brink of the Golden River, its waves were black like thunder-clouds, but their foam was like fire; and the roar of the waters below and the thunder above met, as he cast the flask into the stream. And, as he did so, the lightning glared in his eyes, and the earth gave way beneath him, and the waters closed over his cry. And the moaning of the river rose wildly into the night, as it gushed over

THE TWO BLACK STONES.

GLUCK'S TRIP UP THE MOUNTAIN

When Gluck found that Schwartz did not come back, he was very sorry, and did not know what to do. He had no money and was obliged to go and hire himself again to the goldsmith, who worked him very hard, and gave him very little money. So, after a month or two, Gluck grew tired, and made up his mind to go and try his fortune with the Golden River. "The little king looked very kind," thought he. "I don't think he will turn me into a black stone." So he went to the priest, and the priest gave him some holy water as soon as he asked for it. Then Gluck took some bread in his basket, and the bottle of water, and set off very early for the mountains.

If the glacier had occasioned a great deal of fatigue to his brothers, it was twenty times worse for him, who was neither so strong nor so practiced on the mountains. He had several very bad falls, lost his basket and bread, and was very much frightened at the strange noises under the ice. He lay a long time to rest on the grass, after he had got over, and began to climb the hill just in the hottest part of the day. When he had climbed for an hour, he got dreadfully thirsty, and was going to drink like his brothers, when he saw an old man coming down the path above him, looking very feeble and leaning on a staff. "My son," said the old man, "I am faint with thirst; give me some of that water." Then Gluck looked at him, and when he saw that he was pale and weary, he gave him the water; "Only pray don't drink it all," said Gluck. But the old man drank a great deal, and gave him back the bottle two-thirds empty. Then he bade him good speed, and Gluck went on again merrily. And the path became

easier to his feet, and two or three blades of grass appeared upon it, and some grasshoppers began singing on the bank beside it; and Gluck thought he had never heard such merry singing.

Then he went on for another hour, and the thirst increased on him so that he thought he should be forced to drink. But, as he raised the flask, he saw a little child lying panting by the roadside, and it cried out piteously for water. Then Gluck struggled with himself and determined to bear the thirst a little longer; and he put the bottle to the child's lips, and it drank it all but a few drops. Then it smiled on him and got up, and ran down the hill; and Gluck looked after it, till it became as small as a little star, and then turned, and began climbing again. And then there were all kinds of sweet flowers growing on the rocks, bright green moss, with pale pink starry flowers, and soft-bellied gentians, more blue than the sky at its deepest, and pure white transparent lilies. And crimson and purple butterflies darted hither and thither, and the sky sent down such pure light that Gluck had never felt so happy in his life.

Yet, when he had climbed for another hour, his thirst became intolerable again; and when he looked at his bottle he saw that there were only five or six drops left in it, and he could not venture to drink. And as he was hanging the flask to his belt again he saw a little dog lying on the rocks, gasping for breath,—just as Hans had seen it on the day of his ascent. And Gluck stopped and looked at it, and then at the Golden River, not five hundred yards above him; and he thought of the dwarf's words, "that no one could succeed, except in his first attempt"; and he tried to pass the dog, but it whined piteously, and Gluck stopped again. "Poor beastie," said Gluck, "it'll be dead when I come down again, if I don't help it." Then he looked closer and closer at it, and its eye turned on him so mournfully that he could not stand it. "Confound the King and his gold, too," said Gluck; and he opened the flask, and poured all the water into the dog's mouth.

The dog sprang up and stood on its hind legs. Its tail disappeared, its ears became long, longer, silky, golden; its nose became very red, its eyes became very twinkling; in three seconds the dog was gone, and before Gluck stood his old acquaintance, the King of the Golden River.

"Thank you," said the monarch; "but don't be frightened, it's all right"; for Gluck showed manifest symptoms of consternation at this unlooked-for reply to his last observation. "Why didn't you come before," continued the dwarf, "instead of sending me those rascally brothers of yours, for me to have the trouble of turning into stones? Very hard stones they make, too."

"Oh, dear me!" said Gluck, "have you really been so cruel?"

"Cruel?" said the dwarf; "they poured unholy water into my stream; do you suppose I am going to allow that?"

"Why," said Gluck, "I am sure, sir,—your Majesty, I mean,—they got the water out of the church font."

"Very probably," replied the dwarf; "but," and his countenance grew stern as he spoke, "the water which has been refused to the cry of the weary and dying is unholy, tho it had been blessed by every saint in heaven; and the water which is found in the vessel of mercy is holy, tho it had been defiled with corpses."

So saying, the dwarf stooped and plucked a lily that grew at his feet. On its white leaves hung three drops of clear dew, and the dwarf shook them into the flask which Gluck held in his hand. "Cast these into the river," he said, "and descend on the other side of the mountains into the Treasure Valley. And so good speed."

As he spoke, the figure of the dwarf became indistinct. The playing colors of his robe formed themselves into a prismatic mist of dewy light; he stood for an instant veiled with them as with the belt of a broad rainbow. The colors grew faint, the mist rose into the air; the monarch had evaporated.

And Gluck climbed to the brink of the Golden River, and its waves were as clear as crystal, and as brilliant as the sun. And when he cast the three drops of dew into the stream there opened where they fell a small circular whirlpool, into which the waters descended with a musical noise.

Gluck stood watching it for some time, very much disappointed, because not only the river was not turned into gold, but its waters seemed much diminished in quantity. Yet he obeyed his friend the dwarf, and descended the other side of the mountains, toward the Treasure Valley; and, as he went, he thought he heard the noise of water working its way under the ground. And when he came in sight of the Treasure Valley, behold, a river, like the Golden River, was springing from a new cleft of the rocks above it, and was flowing in innumerable streams among the dry heaps of red sand.

And as Gluck gazed, fresh grass sprang beside the new streams, and creeping plants grew, and climbed among the moistening soil. Young flowers opened suddenly along the river sides, as stars leap out when twilight is deepening, and thickets of myrtle and tendrils of vine cast lengthening shadows over the valley as they grew. And thus the Treasure Valley became a garden again, and the inheritance, which had been lost by cruelty, was regained by love.

And Gluck went and dwelt in the valley, and the poor were never driven from his door; so that his barns became full of corn, and his house of treasure. And, for him, the river had, according to the dwarf's promise, become a River of Gold.

And to this day the inhabitants of the valley point out the place where the three drops of holy dew were cast into the stream, and trace the course of the Golden River under the ground, until it emerges in the Treasure Valley. And at the top of the cataract of the Golden River are still to be seen two black stones, round which the waters howl mournfully every day at sunset; and these stones are still called, by the people of the valley,

THE BLACK BROTHERS.

DISCUSSION OF STORY

How did Gluck differ from his brothers?

Why did the path grow easier as he climbed the mountain?

Why was the river changed to gold for him?

What was in Gluck's heart that made him kind to all suffering creatures?

Would Gluck be welcomed at a king's court where fine manners were required? Why, or why not?

Evangeline

In Prologues and Nine Scenes

By GUSTAVE BLUM and E. FERN HAGUE.

(Continued from the February SCHOOL JOURNAL)

Prolog (Interlude)

(Prologue enters.)

Prologue.

Many a weary year had passed since the burning of
Grand-Pre,
When on the falling tide the freighted vessels de-
parted,
Bearing a nation, with all its household Gods, into
exile,
Exile without an end, and without an example in
story.
Far asunder, on separate coasts the Acadians landed;
Scattered were they, like flakes of snow, when the
wind from the northeast
Strikes aslant through the fogs that darken the
banks of Newfoundland.
Friendless, homeless, hopeless, they wandered from
city to city,
From the cold lakes of the north to the sultry South-
ern savannas.
Friends they sought and homes; and many, despair-
ing, heartbroken,
Asked of the earth but a grave, and no longer a
friend nor a fireside.
Written their history stands on tablets of stone in
the churchyards.
Long among them was seen a maiden who waited
and wondered
Lowly and meek in spirit, and patiently suffering all
things.
Fair was she and young; but, alas! before her ex-
tended,
Dreary and vast and silent, the desert of life, with
its pathway
Marked by the graves of those who had sorrowed and
suffered before her,
Something there was in her life incomplete, imper-
fect, unfinished;
As if a morning in June, with all its music, and
sunshine,
Suddenly paused in the sky, and, fading, slowly de-
scended
Into the east again, from whence it late had arisen.
Sometimes she lingered in towns, till, urged by the
fever within her,
Urged by a restless longing, the hunger and thirst
of the spirit,
She would commence again her endless search and
endeavor.
(Exit Prologue.)

Scene Five

(Enter Evangeline and Father Felician. Evangeline is slightly changed in appearance. She is weary and rests.)

Evangeline.

Sometimes in churchyards do I stray, and gaze at the
crosses and tombstones,

Sit by some nameless grave, and think that perhaps
in its bosom

He is already at rest, and I long to slumber beside
him.

Sometimes, a rumor, a hearsay, an inarticulate whis-
per,

Comes with its airy hand to point and beckon me
forward.

Felician.

Thou shalt find him, child, he cannot be far away.
(Enter peasants.)

Evangeline.

Ah, kind friends, perhaps you can tell me of my
Gabriel—Gabriel Lajeunesse, I mean.

Peasant.

Gabriel Lajeunesse? Oh, yes, we have seen him. He
was with Basil, the Blacksmith, and both have
gone to the prairies.

(Exeunt peasants.)

Evangeline (Musingly).

To the prairies? To the prairies?

(Enter other peasant women and children.)

Evangeline (Seeing peasant woman).

Ah, Katherine, how fares thee?

Katherine.

None too well, sunshine.

Evangeline.

Perhaps thou canst tell me of my Gabriel?

Katherine.

Gabriel Lajeunesse? Oh, yes, we have seen him. He
is a voyager in the lowlands of Louisiana.

But are there not other youths as fair as Gabriel?

Others

Who have hearts as tender and true, and spirits as
loyal?

There is Baptiste Lablanc, the notary's son, who has
loved thee

Many a tedious year; come, give him thy hand and
be happy!

Thou art too fair to be left to braid St. Catherine's
tresses.

Evangeline.

Whither my heart has gone, there follows my hand,
not elsewhere;

For when the heart goes before like the lamp, and
illuminates the way,

Many things are made clear, that else lie hidden in
darkness.

Katherine.

May God help thee!

(Exit.)

Felician.

Oh, daughter! Thy God thus speaketh within thee!
Talk not of wasted affection, affection never was
wasted;

If it enrich not the heart of another, its waters, re-
turning

Back to their springs, like the rain, shall fill them
full of refreshment;
That which the fountain sends forth returns again
to the fountain.
Patience; accomplish thy labor; accomplish thy work
of affection!
Sorrow and silence are strong, and patient endurance
is Godlike.
Therefore accomplish thy labor of love, till the heart
is made Godlike,
Purified, strengthened, perfected, and rendered more
worthy of Heaven!

Evangeline.

Yes, dear Father, I shall labor and wait—
Though I hear in my heart the funeral dirge of the
Ocean.

Ah, I am weary.

(She falls asleep. Father Felician gazes pityingly
at her.)

Felician.

I shall walk to the river's bank and return to wake
her.

Ah, she needs a little sleep.

(Exit Father Felician, L. Enter R., Gabriel and
others, who do not see Evangeline, who is partly hidden
behind a tree.)

Gabriel.

Come, we must be on our way, yet this is a beautiful
spot,

Faint is the air with the odorous breath of magnolia
blossoms,

And with the heart of noon; and numberless sylvan
islands,

Fragrant and thickly embroidered with blossoming
hedges of roses,

By the fairest of these have our weary oars been
suspended.

Under the boughs of the Wachita willows that grow
by the margin,

Safely our boat is moored and scattered about on
the greensward.

Tired with their midnight toil, my weary travelers
slumber.

Come, we cannot linger here, we are bound north-
ward to the land of the bison.

(Gabriel bows his head in reverie, while the others
observe him.)

One Man.

Dark and neglected locks o'ershadow his brow and a
sadness,

Somewhat beyond his years is legibly written.

He seeks in the Western wilds oblivion of self and
sorrow.

(Gabriel arousing himself from his reverie.)

Gabriel.

Yes, we must away. Come, friends.

(Exeunt Gabriel and friends, R. Enter Father Fe-
lician, L. Evangeline awakes from her dream.)

Evangeline.

O, Father Felician!

Something says in my heart that near me Gabriel
wanders.

Is it a foolish dream, an idle and vague superstition?
Or has some angel passed and revealed the truth to
my spirit?

Alas, for my credulous fancy!

Unto ears like thine such words as these have no
meaning.

Felician.

Daughter, thy words are not idle; nor are they to me
without meaning.

Feeling is deep and still; and the word that floats on
the surface

Is as a tossing buoy, that betrays where the anchor
is hidden.

Therefore trust to thy heart and to what the world
calls illusions.

Gabriel truly is near thee; for not far away to the
southward,

On the banks of the Teche, are the towns of St. Maur
and St. Martin.

There the long-wandering bride shall be given again
to her bridegroom,

There the long-absent pastor regain his flock and his
sheepfold.

Beautiful is the land with its prairies and forests
of fruit-trees;

Under the feet a garden of flowers, and the bluest of
heavens

Bending above, and resting its dome on the walls of
the forest.

They who dwell there have named it the Eden of
Louisiana.

Evangeline.

Then let us try once more.

(Exeunt.)

Scene Six

(Enter Evangeline and Father Felician. R.)

Evangeline.

Slowly we enter the Teche where it flows through the
green Opelousas,

And, through the amber air, above the crest of the
woodland,

I see a column of smoke arising from a neighboring
dwelling;

I hear sounds—do you not?—and the distant lowing
of cattle.

Felician.

Near to the bank of the river, o'ershadowed by oaks,
A garden stands secluded and still. I see the house
of the herdsman,

Girded round about is a belt of luxuriant blossoms,
Filling the air with fragrance. Silence reigns o'er
the place.

Evangeline.

Mounted upon his horse with a Spanish saddle and
stirrups

Sits a herdsman arrayed in gaiters and doublet of
deerskin.

Felician.

Broad and brown is the face that from under the
Spanish sombrero

Gazes upon the peaceful scene, with the lovely look
of a master.

He sees us. He is approaching.

Evangeline and Felician.

Oh, it is Basil!

(Basil enters quickly. There is a joyous welcome and
greetings.)

Basil.

Ah! How fares it with thee, child? Father Felician,
I am glad to see thee!

Felician.

And I to see thee, Basil!

Basil.

And you have come all this distance! You must be tired. Come into the house and refresh yourself.

Evangeline (Aside).

But Gabriel comes not. Dark doubts and misgivings steal o'er my heart.

Basil.

If you came by the Atchafalaya, have you nowhere encountered my Gabriel's boat on the bayou?

Evangeline.

Gone? Is Gabriel gone?

Basil (Consolingly).

Be of good cheer, my child, it is only to-day he departed.

Foolish boy! he has left me alone with my herds and my horses.

Moody and restless grown, and tired and troubled his spirit,

He could no longer endure the calm of this quiet existence.

Thinking ever of thee, uncertain and sorrowful ever, Ever silent or speaking only of thee and his troubles, He at length has become so tedious to men and to maidens,

Tedious even to me, that at length I bethought me, and sent him

Unto the town of Adayes to trade for mules with the Spaniards.

Thence he will follow the Indian trails to the Ozark Mountains,

Hunting for furs in the forests, on rivers trapping the beaver.

Therefore be of good cheer; we will follow the fugitive lover;

He is not far away, and the fates and the streams are against him.

Up and away to-morrow, and through the red dew of the morning,

We will follow him fast, and bring him back to his prison.

Felician (To Basil).

But thou hast not yet told me whence comes All thy bounty and thy present occupation?

Basil.

Ah, the soil and climate here is much different from that of Acadie.

When I first came here, prairies and numberless herds were his who would take them.

With much care and labor I succeeded in becoming that which you have found me.

Felician.

Thou wast ordained to be successful anywhere.

Basil.

And now, welcome once more, my friends, who long have been friendless and homeless,

Welcome once more to a home that was better perchance than the old one!

Here no hungry river congeals our blood like the rivers,

Here no stony ground provokes the wrath of the farmers;

Smoothly the plowshare runs through the soil, like a keel through the water.

All year round the orange groves are in blossom, and grass grows

More is a single night than a whole Canadian summer.

Here, too, numberless herds run wild and unclaimed in the prairies;



"Then uprose their commander, and spake from the steps of the altar,
Holding aloft in his hands, with its seals, the royal commission."

Here, too, lands may be had for the asking, and forests of timber

With a few blows of the axe are hewn and framed into houses.

After your houses are built, and your fields are yellow with harvests,

No King of England shall drive you away from your homesteads,

Burning your dwellings and barns, and stealing your farms and your cattle.

Only beware of the fever, my friends, beware of the fever!

For it is not like that of our cold Acadian climate, Cured by wearing a spider hung round one's neck in a nutshell.

(Basil and Felician converse aside.)

Evangeline (Soliloquizing).

O, Gabriel, my beloved!

Art thou so near to me and yet I cannot behold thee?

Art thou so near unto me, and yet thy voice does not reach me?

Ah! how often thy feet have trod this path to the prairies!

Ah! how often thy eyes have looked on the woodlands around me!

Ah! how often beneath this oak, returning from labor,

Thou hast laid down to rest, and to dream of me in thy slumbers.

When shall these eyes behold, these arms be folded about thee?

(Startled.) What was that? Alas! Only the note of a whippoorwill.

Like a flute in the woods, and anon through the neighboring thickets,

Farther and farther away it floated and dropped into silence.

"Patience," whispers the oaks from oracular caverns of darkness,

And from the moonlit meadow, a sigh responds, "Tomorrow."

(Basil approaches from the other side of stage and overhears the last line.)

Basil.

So be it, my child. Basil shall lead thee to thy Gabriel.

Felician.

Farewell! See that you bring the Prodigal Son from his fastime and famine,

And to the foolish Virgin, who slept when the bridegroom was coming.

Evangeline.

Farewell! Farewell!

(Exeunt *Evangeline* and *Basil*, *L.* Exit *Father Felician*, *R.*)

(To be continued in the April number.)

A Graduate's Dream

A dramatization, consisting of a series of scenes and forming a synopsis of the English work in the Course of Study of New York City Schools.

Arranged by MARY F. STARKEY

Prolog

The Graduate reclines in a large armchair at the back of the stage. She is reading, but during the recitation of the prolog she drops her book and falls asleep.

In far-away olden times, in the days of chivalry,
Each loving mother prayed her son a knight might be,
A knight, who aided the helpless, the wretched and forlorn,

A knight, who upheld the true, and put the false to scorn;

A knight, whose life was pure, whose name of fair renown,

Whose days were days of service, of service for the crown.

To this end, like a Spartan mother, she sent her child away,

That at the court of a warrior bold he might learn the skill of his day.

There, in the noble's castle, he learned to know the right,

To appreciate its beauty, to conquer by its might,
To read great Nature's message: "The world it is for thee!"

To love the God above him, to strive His knight to be.

At last the days of practice with spear and sword were o'er;

Well-equipped for the battle, the battle of life and war,
A stripling, he left the castle, his steps to chapel bent,
And there, in its holy stillness, his knightly vigil spent.

In the hours of waiting and watching before the glow of dawn,

He thought of the days to come, of knighthood's vows at morn,

Of tournament and battlefield, of women fair and pure,
Of service to king and country, of love that should endure,

As the fleeting moments sped, sweet memories arose,
Of pleasures of the Past, sweet childish hopes and woes;

Swift visions came before him of the days that were no more—

A pang shot thru his heart,—childhood, it was o'er;
But as in the silent watches, the visions came that night.

From the shadowy chapel arches, there breathed a whisper light,—

"O brave knight and true, this solace to thee I give:—
Tho' childhood's joys are o'er, their memory still will live."

And so to-day, dear friends, as on life's threshold we stand,

The Future and the Past, these are at either hand.
For like the knight of old, as children small we came,
To learn in the Halls of Knowledge, the way, perchance, to fame,

To know and serve the right, and keep it our faces before,

The years that have passed in work, in the duties of each day,

Have armed us for the battle as we start upon life's way.

But not in lonely chapel, by dim candlelight,
Do our memories come as visions of the night,
But here in the day's glad morning, offer we to you
The memories of past years, visions sweet and true.
For these are the dreams of thought, fair traces of childhood's hour,

'Graved on the mind of each, as her Alma Mater's dower;

These are the treasures your children gathered from book and song;

These are the pictures they'll cherish thruout life's journey long.

Then behold the dreaming maiden and the phantoms that come and go,

As music lulls the spirit, music sweet and low.

At the last words of the Prologue, a chorus stationed behind the stage sings the first stanza of Tennyson's "Sweet and Low." As the last notes die away, enter the "Rockaby Lady," with gliding step, and swaying to the rhythm of her own song played on the piano. As she slowly approaches the sleeping graduate, the chorus sings the following stanzas from "The Rockaby Lady":

The Rockaby Lady from Hushaby street

Comes stealing, comes creeping;

The poppies they hang from her head to her feet

And each has a dream that is tiny and fleet—

She bringeth her poppies to you, my sweet,

When she findeth you sleeping.

Would you dream all these dreams that are tiny and fleet?

They'll come to you sleeping,

So shut the two eyes that are weary, my sweet,

For the Rockaby Lady from Hushaby street

With poppies that hang from her head to her feet,

Comes stealing; comes creeping.

As the last stanza is sung the Rockaby Lady circles about the couch, waving her poppy sleeves to and fro. Satisfied that the Graduate is asleep, she beckons to the waiting figures at exits, when song ceases.

Rockaby Lady.

The Rockaby Lady from Hushaby street,

She calleth you, little dreams, so fleet;

She biddeth you bring of childhood's lore,

The visions that ye hold in store.

Break not her slumber, but flit to and fro;

Ye are the dreams that now come and go.

During the first four lines of the above speech, the Mother Goose children, Bo-Peep with Little Jack Horner, Miss Muffet with Little Boy Blue, Jack and Jill, dance in and form

a circle in center of the stage, Bo-Peep in the middle. They skip about Bo-Peep, chanting her rhyme in a sing-song tone, while Bo-Peep shades eyes and looks about vainly for her sheep. As song concludes, Bo-Peep joins the circle; Little Boy Blue takes her place. The circle breaks, forming semi-circle, open toward audience. The children bend toward Little Boy Blue and sing his rhyme while Little Boy Blue blows his horn. As song ceases circle is formed as before and dance resumed. Jack and Jill and Little Miss Muffet follow in turn, their rhymes being sung in same way; dance as before. After Little Miss Muffet has run away from the spider, Little Jack Horner wanders off to a corner and begins to eat his pie. The children follow, singing his rhyme until the last part is reached, when they snatch Jack's pie just as he would pull out the plum, and run off the stage laughing. Jack is in hot pursuit, and screaming lustily.

The dreamer, startled, cries out and half rises. In alarm the Rockaby Lady rushes to her and waves her poppies over her. The chorus softly sings "The North German Lullaby."

Sleep, baby, sleep. Thy father guards the sheep,

Thy mother shakes the Dreamland tree,

And from it falls sweet dreams for thee,

Sleep, baby, sleep. Sleep, baby, sleep.

The dreamer sinks again into slumber. As the music ceases, the Pied Piper enters, preceded by several fairies who dance across the stage before him and out by opposite exit.

Rockaby Lady.

O Pied Piper of dark renown,

Thou joy and curse of Hamelin Town,

Wilt try here thy pipe's fell power?

Dost wish to wreck the dreamer's hour?

Or dost thou come with purpose kind,

To soothe with magic spell her mind?

Pied Piper.

Thou spirit from Dreamland's misty strand,

Fear not the cunning of this hand.

The Piper's lute doth bring no woe

To those who truth and justice show.

The Piper comes with friendly band,

To bring the greetings of Fairyland.

Enter Hansel and Gretel, Cinderella and Fairy Godmother, Beauty and the Beast, Red Ridinghood and Puss-in-Boots.

Rockaby Lady (Advancing).

Then welcome, Piper; I bid thee stay,

And wake the memories of the day.

Pied Piper.

The days of youth are bright spring days,

Shot with the glory of fairy rays.

Each little flower that buds and blooms,

A fairy spirit light illumines;

Each rippling brook that strays to sea,

Thro' wood and wold and flowery lea,

The voice of spirits is its song,

As it babbles its sunny banks along.

The forest monarchs that lift on high

Their tops unto the bright blue sky,

They are the homes of dryads fleet,

But only the young hear the fairy feet,
 As they patter along the green moss dark,
 Or whisk thro' the trees' grim doors of bark.
 The castles that frown from the cliffs above,
 Oh, these are the homes of joy and love,
 Of love for the good and the fair and the true,
 Of honor to wondrous virtue due.
 The people who dwell in Fairyland,
 Wouldst wander again with them hand in hand?
 Ah, memory alone can bring them back,
 But dreams of them thou shalt not lack.
 Come, fairy creatures of childhood's hour,
 Bestow on her a fairy power.

Hansel and Gretel (Advancing to couch).

The gift of Hansel and Gretel to thee:—
 May thy spirit in innocence ever be.

Cinderella and Fairy Godmother.

Tho' the world be cold and men unkind,
 May the humility of Cind'rella clothe thy mind.

Puss-in-Boots and Red Riding Hood.

O damsel fair, of magic's lore,
 We give to thee a priceless store:—
 May thy spirit e'er have power to fill
 The world with good and never ill.

Beauty and the Beast.

May thy mind's eye pierce the outer mold,
 Reject the dross, and prize the gold.

Pied Piper.

A long farewell, O maiden fair;
 Let music breathe it upon the air.

The Pied Piper and his troops pass out slowly
 and with many backward glances as chorus
 sings, "How Can I Leave Thee?"

How can I leave thee!
 How can I from thee part!
 Thou only hast my heart,
 Sister, believe.
 Thou hast this heart of mine
 So closely bound to thine,
 No other can I love
 Save thee alone.

Rockaby Lady.

The fairy troop hath passed away;
 So vanish the fancies of its day,
 But legend's lore doth with it blend,
 And memory's message to thee send.
 Fair spirit of dreams, the maiden guide,
 Far across to yon bleak mountainside
 Where—

The following scene, adapted from "Hiawatha," should be acted in pantomime, the three characters suiting their actions to the words of the Reader.

Reader.

At the door of his wigwam
 Sits the ancient arrow-maker.
 In the lands of the Dacotahs,
 Making arrow-heads of jasper.
 At his side in all her beauty,
 Sits the lovely Minnehaha,
 Plaiting mats of flags and rushes.
 Thro' their thoughts they hear a footstep,
 Hear a rustling in the branches,
 And with glowing cheeks and forehead

Suddenly from out the woodlands
 Hiawatha stands beside them.
 Straight the ancient arrow-maker
 Looks up gravely from his labor,
 Lays aside the unfinished arrow,
 Bids him enter at the doorway
 Saying, as he steps to meet him,
 "Hiawatha, you are welcome."
 And the maiden looks up at him,
 Says with gentle looks and accent,
 "You are welcome, Hiawatha."
 Then uprises Minnehaha,
 Brings forth food and sets before them,
 Water brought them from the brooklet,
 Gives them food in earthen vessels,
 Gives them drink in bowls of basswood,
 Listens while the guest is speaking,
 Listens while her father answers,
 But not once her lips she opens,
 Not a single word she utters,
 Then, as in a dream, she listens
 To the words of Hiawatha
 As he talks of old Nokomis,
 Who has nursed him in his childhood,
 As he tells of his companions
 And of happiness and plenty
 In the land of the Ojibways,
 In the pleasant land and peaceful.
 "That this peace may last forever,
 And our hands be clasped more closely,
 And our hearts be more united,
 Give me as my wife this maiden,
 Minnehaha, Laughing Water,
 Loveliest of Dacotah women."
 And the ancient arrow-maker
 Pauses a moment ere he answers,
 Smokes a little while in silence,
 Looks at Hiawatha proudly,
 Fondly looks at Laughing Water,
 And makes answer very gravely,
 "Yes, if Minnehaha wishes;
 Let your heart speak, Minnehaha."
 And the lovely Laughing Water,
 Neither willing nor reluctant,
 As she goes to Hiawatha
 Softly takes her stand beside him,
 While she says and pales to say it,
 "I will follow you, my husband."
 From the wigwam he's departing,
 Leading with him Laughing Water.
 Hand in hand they go together,
 Thro' the woodland and the meadow,
 Leave the old man standing lonely
 At the doorway of his wigwam,
 Calling to them from the distance,
 Calling to them from afar off,
 "Fare the well, O Minnehaha!"

The arrow-maker leaves the door of his wigwam, gazing after the departing couple, then returns to his former seat and resumes his work. The chorus sings Longfellow's "Stars of the Summer Night." During the progress of the song the arrow-maker rises and slowly passes out.

(To be continued in the April number)

Monthly Plans in Arithmetic

By SARA LEVY, New York

Grade 6B

SUGGESTIONS

Divide the arithmetic period of the day into three parts.

I. Rapid Calculation.

(a) Oral, including drills on combinations, the tables, or adding columns of figures at the board. Aim to secure accuracy and speed.

(b) Written Mechanical Processes. Mainly Addition and Long Division (as these involve the four fundamentals of addition, subtraction, multiplication and division), with a time limit for solving.

II. Mental Problems.

(a) Class work simultaneously, answers written upon signal.

(b) Individual work from arithmetics.

III. Problems to be explained, then new step drilled on either at the board or on paper. Problems should not involve many processes nor unnecessarily large numbers.

TEACHING

When teaching concentrate class's attention on the work of the individual (child or teacher) at the board.

Recitation: In conducting recitation use the board freely, sending slow pupils to board, giving them minimum amount of work. Brighter children, at seats, work maximum amount. Frequently employ brighter children as monitors for individual backward pupils.

Review: Have a weekly written review of points taught, to be corrected by teacher. Aim to glean general mistakes either in method or calculation, to be made the subject of a drill lesson the following week.

Outline of Work for First Month

I. *Rapid Calculation*—(a) Oral drills on addition combinations (with subtraction), on mul-

tiplication tables (with division) and column addition. (b) Written time examples in addition and long division.

II. *Mental Problems*—(a) Review—Linear measure and United States money. (b) Mental problems in percentage.

III. *Percentage*—(a) Review of 6A work in Percentage. (b) Drill on "Tools" (helps to overcome general mistakes in mechanical processes). (c) The first three cases in Percentage, and as applied to problems, solved by the use of a formula. (d) Typical examples in Percentage.

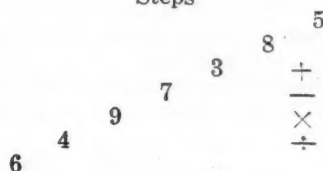
METHODS AND DEVICES

I. *Rapid Calculation*—(a) Use any of the following devices to secure accuracy and speed:

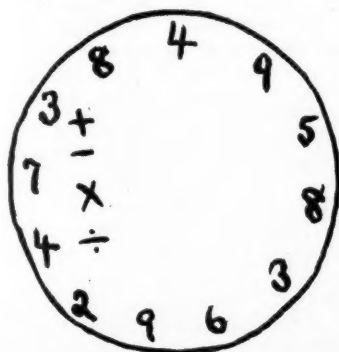
Ladder

9	
4	
8	
7	+
6	-
3	×
9	÷
2	
8	

Steps



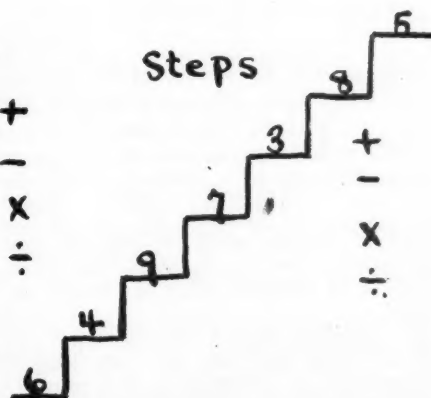
Wheel



Ladder

9	
4	
8	+
7	-
6	×
3	÷
9	
2	
8	

Steps



Wheel			
	8	4	6
3		+	9
7		—	5
4		×	8
2		÷	3
9			6

Charts of oak tag similar to the above can be made for use all term. In addition, add the numbers just as they appear in the device (up, down, to right, to left, etc.), or add one of the digits; as, 8 to each number around the wheel, etc. In subtraction, place a large number, as 45 outside the chart, and subtract each number from it. Drills in multiplication can be varied with addition, multiplying the numbers on the chart by one of the digits. In division, as in subtraction, divide the numbers on the charts into a larger number placed outside as a dividend. These drills in mechanics of arithmetic are to be well grounded by variety of work, reducing the time and allowing no stumbling as the work proceeds thruout the entire term.

(a) Review reading and writing of numbers in bb. column addition. Have oral addition up and down the column before the final answer is given. Get the class to recognize combinations of 10, to secure speed; as,

2
4
6
5
4
9
1
8

Adding up: 18, 22, 27, 39; and down: 12, 17, 21, 31, 39.

Drill.—Adding 9 to a number, the unit figure is always 1 less; as,

9	9	9	36
+1	+6	+8	+9
—	—	—	—
10	15	17	45

Drill until +9's become as familiar as +2's. In —9's the unit figure is always 1 more; as,

20	36
—9	—9
—	—
11	27

Apply to column addition and all oral rapid calculation, allowing no hesitation when a +9 or a —9 is reached after the above drills are taught.

(b) Written Rapid Calculation: Time examples—Two addition and two long division examples to be finished in five minutes. Reduce time as the work proceeds.

Aim in Rapid Calculation: To secure accuracy and speed in the handling of figures, so as to fit children to fill positions like cashier, bookkeeper, accountants and so on.

II. Mental Problems.—(a) In Linear Measure and U. S. Money, plan to review the tables. The following examples are to be used as types only, which, together with the mental work in percentage, will furnish sufficient mental work for the month. Have a number of examples on each type, varying numbers only at first, later words, too, until you feel each child can speedily solve examples based on these types. Time the solution of all mental problems; as, 1 minute to think out the answer, and $\frac{1}{2}$ minute to write it or give it orally.

Type Problems.—(1) How many ft. of wire fence is required around a field 50' x 30'? Find the cost of the wire @20c. a ft. (2) 1 inch is what per cent of 1 foot? (3) $16\frac{2}{3}\%$ of a foot is how many inches? (4) If it takes $\frac{3}{4}$ yd. of ribbon to make a bow, find the cost of 2 bows @20c. a yd. (5) A. is 6 ft. high; B. is $83\frac{1}{3}\%$ as high. Find the height of B. (6) If I bought 16 yds. of cloth for \$30, how many yds. can I buy for \$90? [3×16] (7) Find the cost of 48 yds. cloth @ $87\frac{1}{2}\%$ per yd. (8) For \$100, how many yds. of silk can I buy @\$.125 a yd.? [$100 \div \frac{1}{8}$] (9) Make change from \$1, if I bought a ruler for 10c., a pencil for 5c., a reader for 40c. and 2 pens @5c. each. (10) Find the cost of a doz. oranges @ 3 for 10c. How much change would I get from \$1? [$12 = 4 \times 3$. Cost = $4 \times 10c. = 40c.$ Change, 60c.]

III. Percentage.—Review for 6A work with drills.

(a) The meaning of "per cent" by the hundred. (b) Cite instances in daily use of the practical side of Percentage; as, Brooklyn Eagle: "95% of the men registered at the polls, voted on Tuesday." New York Sun: "15% of the immigrants this week were Italians." "Agents are charging $2\frac{1}{2}\%$ now for collecting debts."—Globe. "Depositors of \$5 or more are entitled to a 4% dividend, beginning July 1."—German's Savings Bank. "A discount of $33\frac{1}{3}\%$ was given on jewels during the holiday trade."—Sun. (c) By the use of charts give plenty of drill on the following points, until the class can do the work indicated with accuracy and speed. Aim: To overcome the difficulty later on in problems in handling all kinds of per cents. Points to be covered are:

(1) Equivalents of per cents in common (lowest terms) and decimal fractions;— $5\% = \frac{5}{100} (\frac{1}{20}) = .05$; $12\% = \frac{12}{100} (\frac{3}{25}) = .12$; $2\% = \frac{2}{100} = .02$. (2) Business fractions of 100%;— $33\frac{1}{3}\% = \frac{1}{3}$; $87\frac{1}{2}\% = \frac{5}{8}$; $16\frac{2}{3}\% = \frac{1}{6}$. (3) Fractions of 1%;— $\frac{1}{2}\% = (\frac{1}{2} \text{ of } 1\% = \frac{1}{2} \text{ of } \frac{1}{100} = \frac{1}{200})$; $\frac{1}{3}\% = \frac{1}{300}$; $\frac{3}{5}\% = \frac{3}{500}$. (4) $100\% = \text{whole} = 1$ ($100\% = \frac{100}{100} = 1$). (5) More than 100%;— $125\% = 1\frac{1}{4} = \frac{5}{4} = 1.25$; $133\frac{1}{3}\% = 1\frac{1}{3} = \frac{4}{3} = 1.33\frac{1}{3}$.

Charts:

Change to fractions (lt.), to decimals

25%	16%	$\frac{1}{4}$ %	125%
$33\frac{1}{3}$ %	35%		
$16\frac{2}{3}$ %	4%	$\frac{1}{2}$ %	250%
$83\frac{1}{3}$ %	2%		
$6\frac{1}{4}$ %		$\frac{3}{8}$ %	175%
$8\frac{1}{3}$ %	28%		
80%	Etc.		

Front of chart.

Change to per cents			
$\frac{1}{4}$	$\frac{1}{16}$	$\frac{5}{4}$.08
$\frac{2}{5}$.28
	$\frac{1}{12}$	$\frac{9}{8}$.002
$\frac{3}{8}$.60	.105
	$\frac{1}{200}$.04	
$\frac{5}{6}$.16	
	$\frac{1}{500}$	1.25	
		.015	

Reverse side.

Charts may also be used for drill as follows:

Find *50% of			
26	98	$\frac{1}{2}$	\$5
38	\$75		50c.
\$200			
\$400	208	$\frac{2}{5}$	\$1.25
84	14		
426	48	$\frac{4}{7}$	
	1 doz.		
\$1	1 ft.	Etc.	

*Change the percent. Drill on $66\frac{2}{3}\% = \frac{2}{3}$;
 $83\frac{1}{3}\% = \frac{5}{6}$.

Is *20% of what number?			
6	$\frac{1}{2}$	2 oz.	\$10
9		200	\$5
\$10		45	20c.
20	$\frac{4}{5}$		
4			
12			
5 lbs.	Etc		

Read:—6 is 20% of what number?

Is what % of			
2	4	5	6
3	9	3	20
5	12		
2	24		
3	8		
4	5		
7	8		

Read:—2 is what % of 4? 3 of 9? etc.

(b) *Tools*.—The careful teacher of arithmetic will glean from close examination of a set of written papers certain general mistakes in calculation frequently made by a number of pupils. If these mechanical difficulties can be overcome by sufficient drill, the child can devote his whole attention to the thought side of the problem. Therefore, I have evolved a set of "Tools," or helps, to overcome these defects. A few minutes' drill before the actual arithmetic lesson on one of the following types, giving plenty of work on the type in question, will

reap wonderful results later on. ("Tools" must be suited to the class in question.)

(1) Reduce a mixed number to an improper fraction (l.t.); as, $14\frac{1}{5} = \frac{71}{5}$, $3\frac{1}{8} = \frac{25}{8}$. Application to Percentage: $12\frac{1}{3}\% = \frac{37}{300}$, $8\frac{1}{4}\% = \frac{33}{400}$, $4\frac{3}{4}\% = \frac{19}{800} = \frac{7}{150}$.

(2) Moving the decimal point to the left in division by 10, 100, etc.; as,

$$\$64.60 \div 100 = \$64.60 = \$646 \text{ Ans.}$$

(3) Move decimal point to left and divide by 2, 5, etc.

$$1\% \text{ of } 64.60 = \frac{1}{10} \times \$64.60 = \$6.46$$

Application to:—

$$10\% \text{ of } 64.60 = \frac{1}{10} \times \$64.60 = \$6.46$$

$$\frac{1}{3}\% \text{ of } \$9.60 = \frac{1}{300} \text{ of } \$9.60 = \$0.32 \text{ Ans.}$$

$$5\% \text{ of } \$46.30 = \frac{1}{20} \text{ of } \$46.30 = \$2.315$$

(4) a. If $\frac{1}{3}$ of a No. is 8, find the whole No.

b. If $\frac{2}{5}$ of a No. is 10, find the whole No.

[If $\frac{2}{5}$ of a No. is 10, then $\frac{1}{5}$ of the No. is $\frac{1}{2}$ of 10 or 5, and $\frac{5}{5}$ of the No. is 5×5 , or 25.] Numerous examples on this type; as, $\frac{3}{8}$ of a No. is 6; find the whole number. $\frac{4}{5}$ of a No. is 16; find the number. Apply to $66\frac{2}{3}\%$ of a No. is 8; what is the number? (Find the whole, a part being given.)

(5) 1 is what part of 3? 6 is what part of 10? Apply to:—1 is what per cent of 3? (1 is $\frac{1}{3}$ of 3. $\frac{1}{3}$ of 100% = $33\frac{1}{3}\%$ 1 is $33\frac{1}{3}\%$ of 3.)

(c) To teach the first case in percentage—To find a part of a number, given the whole and the per cent, by the use of the formula.

Ex. What is 10% of \$640?

Tr. Change 10% to a fraction. Ans. $10\% = \frac{1}{10}$. Tr. 10% or $\frac{1}{10}$ can also be called a part of a number. So, in finding 10% of \$640 we are finding a *part* of it. Statement on the blackboard reads: 10% of \$640 = part.

Tr. What *whole* number do we find a part of? Ans. \$640 is the whole.

Tr. By writing "whole" over \$640 and sign % over the 10%, the formula is made; as, % of whole = part. By filling in each term ($10\% = \%$; \$640 = whole) under the corresponding parts of the formula the actual work reads:

$$\% \text{ of whole} = \text{part.}$$

$$10\% \text{ of } \$640 = \frac{1}{10} \times \$640 = \$64 \text{ Part Ans.}$$

Typical abstract examples to be worked under this formula:

(1) What is $33\frac{1}{3}\%$ of 1,860 sheep?

(2) Find 1% of \$68.40.

(3) 35% of \$8.60 is how much?

(4) $12\frac{1}{2}\%$ of 1,200 is what?

(5) The number is 185; find 20% of it.

(6) Add: 4% of 4,000, $\frac{1}{4}\%$ of 4,000, and $4\frac{1}{4}\%$ of 4,000. What is the sum?

(7) What is the difference between 50% of 200 and $\frac{1}{8}\%$ of 200?

Mental Type Problems on Case I. To find a part:

(1) Find how many inches in $16\frac{2}{3}\%$ of 1 yd.

(2) Spent 20% of \$1. How much change did I receive?

(3) Earn \$10 a week; spent 30% of it. How much do I save?

(4) In a spelling lesson there are 50 words. 80% are correct. How many words were misspelled?

(5) A. walks 10 miles an hour. B. walks 10% faster. How many miles an hour can B. walk?

(6) There are 30 pupils in class; $16\frac{2}{3}\%$ were absent during the term. What % and how many pupils had perfect attendance?

(d) Aim: To apply the formula (% of whole = part) in a modified form to suit concrete problem work.

Ex. A man owns 1,408 sheep; he sells 75% of them. What % has he left and how many sheep has he left?

Tr. questions as to the important parts of the formula and elicits the answers. 1,408 sheep are whole number owned; 75% is the per cent sold, and we are asked to find the % left and the number of sheep left. If he sold 75% of his sheep, what % of his sheep has he left?

Ans. He has 25% of his sheep left.

Tr. How will you then find the number of sheep left?

Ans. By finding 25% of the whole number—the 1,408 sheep owned.

Tr. writes formula (% of whole = part) on the board. By putting "sheep owned," since this is the *whole* number of sheep he owns, over the word "whole," and, since we want to find the number left, adding "left" to the word "part," the formula now reads: % of sheep owned = part left. Tr. elicits the idea that if we want to find the number of sheep sold, we would take 75% of 1,408 sheep; whereas, by taking 25% of 1,408 sheep, we will find the number left, since 25% is the "per cent left." Therefore, add the word "left" over the % sign. The actual work will now be:

(Fill in)

left

% of sheep owned = part left.

25% of 1,408 sheep = $\frac{1}{4} \times 1408 = 352$.

352 sheep are left. Ans.

Thus bring out the idea that the per cent and the part represent the same thing only in different ways (the equality of the equation), and therefore must have the same names; as,

owed

lost

% of debt = part owed; % of money = part lost.

The example above has another means of solution. Children may take their choice:

(Fill in)

sold

% of sheep owed = part sold.

75% of 1,408 sheep = $\frac{3}{4}$ of 1,408 = 1,056 sheep sold.

1,408 sheep owned—1,056 sheep sold = 352 sheep left. Ans.

Typical Concrete Examples with suggestive formulæ:

1. Had \$300; spent $33\frac{1}{3}\%$ of it for clothes, 40% for rent and saved the rest. How much do I save? (Spent % of money = part spent.)

2. In a cask of oil there are 168 gallons, $16\frac{2}{3}\%$ leaked out; I sold the rest @20c. a gallon. How much do I make? [Saved % of gallons = part saved (or rest).]

3. In a field there are 55 trees; 20% are destroyed by storm. What per cent are left standing and how many trees are standing? (Destroyed % of trees = part destroyed.)

4. Bought 55 yds. muslin @8c. a yd. and 27 yds. of silk @60c. a yd. If I paid $66\frac{2}{3}\%$ of the bill, how much do I still owe? (Paid % of bill = part paid.)

5. In a school there are 850 pupils; 48% are boys. How many girls are there in the school? (Girls % of pupils in school = part girls.)

Case II. To find the whole, given per cent and part.

Ex. $83\frac{1}{3}\%$ of a number is 25. Find the number.

("Is" in the example can be read "equals.")

Formula: % of number [whole] = part.

Fill in: $83\frac{1}{3}\%$ of number = 25

Work: % of number = 25

What represents the whole number?

% of number = whole

What is $\frac{1}{6}$ of the number?

$\frac{1}{6}$ of number = $\frac{1}{6}$ of 25 = 5

(A "Tool.")

% of number = $6 \times 5 = 30$

the number. Ans.

Applied to problems: If 60% of the whole school are 360 girls, how many are in the school?

Tr. Have children read orally the example, beginning with the per cent sign (%), so as to get the wording of the formula:

Girls

are

% of whole school = girls.

Fill in: 60% of whole school = 360 girls.

Work: $\frac{3}{5}$ of whole school = 360 girls.

$\frac{5}{5}$ of the whole school = school

$\frac{1}{5}$ of the whole school = $\frac{1}{3}$ of 360 = 120

$\frac{5}{5}$ of the whole school = $5 \times 120 = 600$

pupils in the school. Ans.

Typical Problems:

(1) Saved \$45 by putting 25% of my money in the bank. How much money had I at first?

(2) Boy earns \$15 weekly, which is 55% of what his father earns. How much does the father earn? How much do both earn? (Part boy earns is a per cent of what the father earns or boy earns per cent of father's earnings = part boy earns.)

(3) Ten yds. is 20% of my age. How old am I?

(4) Spent 20% of my salary, yet I put \$20 in the bank. How much is my salary and how much did I spend? (Saved % of salary = part saved (in bank.) If I spent 20%, I must have saved 80%. So, 80% of my salary is the \$20 I put in the bank.)

(5) Paid $37\frac{1}{2}\%$ of my money for a farm and had \$1,500 left. How much did the farm cost? (I must have had left the difference between 100% the whole money and $37\frac{1}{2}\%$ paid for the

farm, or $62\frac{1}{2}\%$. Left % of my money = part left. $62\frac{1}{2}\%$ of my money = \$1,500.)

Case III. To find the per cent (rate) given the whole and part.

Ex. 12 is what per cent of 960?

Formula: % of whole = part. (By questioning elicit that 12 is a number of hundredths of 960; therefore, 12 is a part of 960, the whole.)

Fill in formula:

% of 960 = 12. (What part of 960 is 12?)

$\frac{12}{960}$ of 960 = 12. (Reduce to lowest terms.)

$\frac{12}{960} = \frac{1}{80}$ (Reduce to per cent.)

$\frac{1}{80}$ of 100% = $\frac{1}{80} \times \frac{5}{100}\% = \frac{5}{8} = 1\frac{1}{4}\%$. Ans.

Applied to problems: Ex. A boy spells 20 out of 25 words correctly. What per cent does he receive?

By questioning elicit that 20 words are the part correct out of the whole lesson of 25. 20 is the part and 25 the whole.

Formula:

Correct

% of lesson = part correct.

Fill in:

% of 25 = 20 (What fraction of the whole had he correct?)

$\frac{20}{25}$ of 25 = part correct.

(Reduce to l.t.)

$\frac{20}{25} = \frac{4}{5}$

(Reduce to per cent.)

$\frac{4}{5}$ of 100% = 80% correct; he received. Ans.

Typical Examples:

(1) What per cent of \$125 is \$12.50?

\$12.50

("Tool": \$12.50 is $\frac{\quad}{125}$ of \$125. To move

decimal point—multiply numerator and denominator by 100; as,

$$\frac{12.50}{125.00} = \frac{1250}{12500} = \frac{1}{10} = 10\%$$

(2) Man worth \$25,000 lost \$275. What per cent of his money did he lose?

(3) Had \$432 in the bank, drew out \$54. What per cent had I left? (Left % of money = part left. I had left \$432—\$54 = \$378 left.

378

\$378 left is $\frac{\quad}{432}$ of my money = $\frac{7}{8} = 87\frac{1}{2}\%$ left.)

(4) Bought a house for \$9,000; paid on it \$6,750. What per cent do I still owe?

(5) What per cent of a school is boys if there are 600 boys and 560 girls in the school? (Boys % of the school = part boys.

+ 600 boys 600
560 girls 600 boys = $\frac{\quad}{1160}$ of school.)

1160 in school

If I had This or That

When Abraham Lincoln was a lad
And lived in a hut in the wood,
No books, no lamp, no time he had,
And yet, it is understood,
He trudged many miles to borrow a book.
The light of the flickering fire he took
And studied whenever he could.
And none of his friends ever heard him say,
In a self-excusing and hopeless way:
"If I had this or that, I would."

When Joan of Arc was a little maid,
Untutored, gentle, good,
And France was conquered and dismayed
By England's masterhood,
She had no wealth nor armament;
Alone, with her faith, the little maid went
And freed her land as she could.
And nobody ever heard her say,
In a listless, longing, empty way:
"If I had this or that, I would."

When young James Watt sat by the fire
And watched the burning wood,
He saw the kettle's lid mount higher,
Observed and understood;
He had no need of a laboratory
To plan the great steam engine's glory;
He used his eyes as he could.
And he never once was heard to say,
In a shiftless, thriftless, futile way:
"If I had this or that, I would."

If now you will read your histories o'er
(As I earnestly think you should),
The fact will impress you more and more
In the lives of the great and good,
That they were those who never held back
For circumstance or material lack—
But arose and did what they could.
And never a one was heard to say,
In the weak, surrendering, doubting way:
"If I had this or that, I would."

—STELLA GEORGE STERN PERRY, in *March St. Nicholas*.

Flower Industry in France

The *Syndicat des Horticulteurs* gives the production of flowers in the Nice district (France), in 1909, as 7,550 tons, valued at \$5,790,000, the industry employing 18,600 persons. Two special trains transport these flowers daily to the north, especially to Paris, London, Berlin, and St. Petersburg, during the season. The flowers are packed in light willow baskets weighing either six and one-half or eleven pounds, and are forwarded to their destination by parcel post. The flowers cultivated for export are chiefly carnations, violets, and anemones, while orange blossoms, tuberose and jasmine are most extensively used in the perfume factories at Grasse. The production of flowers being more remunerative than farming is the principal reason for the large imports of dairy and farm products into Nice.

In the flower gardens a man earns about 60 cents a day and a woman 40 cents, and in some cases less. A girl flower picker in the district of Grasse earns 20 to 25 cents a day.

Industrial Geography

Fish and Other Industries of the Water

By SUPT. G. B. COFFMAN, Pana, Ill.

Fish has formed one of the principal foods in America ever since the Pilgrims landed at Plymouth. It is said that they came over here "to worship God and catch fish."

In this country there are about three hundred thousand people engaged in catching fish. The industry extends all along the Atlantic and the Pacific coasts. A great amount of fish is taken from the Great Lakes and the rivers. In late years much fishing is done along the shores of southern Alaska. There are several thousand American vessels engaged in this work. They are found all along the Atlantic coast, even as far north as the Grand Banks of Newfoundland.

We catch about two billion pounds of fish each year. This catch sells for sixty millions of dollars. It would take all the mules in the United States to haul this catch. The greater part of the catch comes from the New England States. The Middle and Southern States furnish much. About one-tenth comes from the Pacific coast and the rivers of that slope. Salmon are found in abundance in Alaska and the rivers of the Pacific slope. The catch of this one fish runs up in the millions of pounds. White fish are caught in the Great Lakes. More than a hundred millions of pounds are caught of this fish yearly.

The fish supply seems to be inexhaustible. It is wonderful how the ocean, lakes and rivers help to feed man. The little herring alone is found in every grocery store. Fifteen hundred million pounds of it are eaten every year. Thirty million pounds of cod are caught to supply the demand for dried cod. It looks as if the supply would soon be exhausted, but it is said that the supply is as boundless in the ocean as the shores of time and we need not fear the supply being cut short in the oceans.

In the rivers it is different and the Government has wisely regulated the catch by law. The Government helps to destroy the worthless fish and stock the waters with useful fish, protecting them so that the young will not be destroyed before they are ready for food.

In the ocean, fish form great shoals. They move along in great masses, some of them. The cod, for example, moves in water about one hundred and fifty feet deep. Some such shoals contain as much as one square mile. Such a shoal contains about one hundred million cod. This would be more than enough to give one cod to every person in the United States.

When we stop to think how fish increase, we do not then wonder at such a great number in the oceans, and even in the rivers where they have so many enemies. It is said that the

codfish lays three million of eggs at a time. The sturgeon lays even more. Were it not for so many enemies, the waters would soon be full of fish. Man, birds, reptiles, and even fish themselves, devour the eggs and the young and old fish. Only the survival of the fittest remain to be the producer of other fish.

Eight thousand men go out from the United States to catch codfish alone. They go out in their boats and remain away from home for months. On the Atlantic coast they go as far north as the Arctic Ocean and south to Cape Hatteras. On the Pacific coast they are found along Oregon, Washington, British Columbia and Alaska. We get the most of our cod from the Atlantic coast, near the banks of Newfoundland and New England. Most of these men are from New England States. They go out in May or June in their schooners with supplies to last them two or three months. They anchor their schooner near some good feeding-ground and fish with lines and trawls from small boats. They are prepared to cure the fish as fast as they catch them.

These fishermen supply almost the whole United States with dried cod. We also ship great quantities to France, Spain, Portugal, Italy and Brazil. Enough cod is prepared by these fishermen to give every person in the United States one pound of cod.

A thousand or more boats go out from Gloucester, Massachusetts, each year to catch mackerel. It is the habit of the mackerel to go in deep water in winter and return in the spring. When they are returning, the boats go out off the coast of the Middle and Southern States to meet them. They follow them north as the season advances, even till they reach the Gulf of St. Lawrence. New York and Philadelphia are the centers of trade.

Mackerel travel in schools. These schools are often very large, so large that it is said if all were caught in one of the largest it would fill a million barrels. Mackerel is one of the principal food fish. It is often salted in kegs and shipped thruout the country.

The salmon is one of the chief food fishes of commerce. It is also one of the most profitable of our food fishes. The center for this catch is on the Pacific coast. From Alaska to the Gulf of Monterey the salmon is caught. The rivers all along the coast mentioned contain the salmon, including the mighty Yukon. So great is the trade in this one fish that many cities have no other industry. Little else is done at Astoria, near the mouth of the Columbia, and Bellingham on Puget Sound. Here hundreds of men are employed in canning the fish. Single

factories can be found here where more than a half million cans of fish are put up in one day.

The Columbia River is the most noted for this industry. Along this river people do but little else. More than one hundred million dollars' worth of fish have been exported from this river. They are shipped to all parts of Europe, Japan, China and India.

There are several varieties of salmon. The largest are found in the Yukon and Columbia rivers. The largest weigh about eighty or one hundred pounds, but the average salmon weighs about twenty pounds. Some of the smallest weigh five or eight pounds.

It is interesting to know the life history of the salmon. The people who make the catch well understand this. At about four years of age the salmon makes its way, usually in schools, up the river. It makes its way up the river, going over shoals, rocks and rapids, until it gets to or near the head waters of the river. Here it digs a hole in the bed of the river and lays its eggs. Then it starts down the river again, rarely ever reaching the ocean again. Soon the eggs hatch, producing minnows. It commences to feed and travel, slowly down the river. It reaches the ocean when it is quite small. Here it continues to grow for about four years, when it is in its prime. The body is plump and fat. It now starts back up the river, as stated before, for the purpose of laying its eggs. They go up the river in vast shoals or schools. They are so many that the river sometimes looks like a solid bed of fish. They often crowd the mouth of the river so that one might row several miles thru fish.

The fishermen know when and where to place their nets or traps to catch the fish to the best advantage. Of course, they set the nets directly in the course of the fish that are journeying up the river. Seventy thousand have been known to be caught in one net. Sometimes they are caught by traps or water wheels. It is not hard to catch them when they are going up the river.

It is very interesting to know how the salmon is prepared for the market. Most of this work is done by the Chinaman and the Japanese. The buildings where this is done are usually at the water's edge, so that the fish can be loaded directly in the ship or boats. An interesting account of this can be found in Carpenter's Industrial Reader.

The salmon industry is being developed more and more in Alaska. Each year brings better returns. Each year the fish catch of Alaska amounts to more than the amount we paid Russia for the country. The southern coast of Alaska is now considered among the best fields for catching fish. It is thought that it will soon rival the Atlantic coast.

The white fish comes from the Great Lakes. There are many men engaged in catching this fish. The output is great and the white fish is shipped to many parts of the United States. There are many other varieties of fish found in the Great Lakes which give food to man.

Many fish come from our rivers, a great many more than the people think. There is scarcely a river or creek, or even pond, which does not produce some variety of fish. Many varieties are found in the Mississippi and its tributaries. A good example of the production of fish is found at Havana, Ill., on the Illinois River. Here many carloads of fish are shipped to the different parts of the United States each year. Some are shipped even to the Old Country. Many men are given employment at Havana in the catching of fish. This is only one example of the small rivers where food is taken from the water for man.

Another important food taken from the water is the oyster. This food is considered a luxury by most people, yet there are but few who do not indulge in the luxury.

The oyster industry is carried on on the Atlantic coast from Massachusetts to Florida, in the Gulf of Mexico, Gulf of California and San Francisco Bay. They are also raised on the coast of Oregon and Washington. However, many oysters are raised in other parts of the world.

There are many natural beds of oysters, but of late years many new beds have been planted and protected until they are quite as profitable as the natural beds. The Government has planted the egg of the Chesapeake oyster on the Pacific coast and many places along the Atlantic coast. They are proving successful, and the future looks bright for the oyster to become one of the common foods of the workman.

To-day, the Chesapeake Bay is the center of the oyster industry. Here conditions are favorable for the growth and the protection of the oyster. Almost the whole bay is an oyster bed, at least all but the places which are not favorable to the growth. Here were the natural beds, but many new beds have been sown here by the Government. It is estimated that in the near future Chesapeake Bay will bring or produce five hundred million dollars' worth.

The oysters are harvested in the fall and winter. Rakes and dredges are used. They are raked from the bottom of the sea and loaded in boats. The shell is then removed. Sometimes they are shipped to the consumer in the shell.

The oysters from these beds are shipped to all parts of the United States. There is scarcely a country store where the oyster in season cannot be had. In many families the oyster makes the supper.

An acre of oysters is worth far more than an acre of land. It will bring the owner far more money to the outlay. The French are famous for the oyster farm. There is an oyster farm in France of five hundred acres which has brought the owner more than a million dollars. Near the town of Whitstable, England, there is a farm of oysters of twenty-seven square miles. This farm produces a million dollars' worth of oysters each year.

The egg of the oyster is too small to be seen by the naked eye. One oyster will produce several million eggs. When they hatch they are very small. They are delicate and very susceptible to cold. They finally attach themselves to some object and depend on the water to bring them food. When they are a year old they are about the size of a silver quarter of a dollar. It takes them three or four years to become full size. At this time it is harvested. On account of the habits of the oyster, it can only be grown in certain localities.

The largest packing centers are upon the Chesapeake Bay. Baltimore is perhaps the largest. From this city oysters are sent by boat, by trains to all parts of the United States. Many millions are shipped annually from this city. Many thousands of men are employed here in the preparation of the oyster for shipment. After the shell is removed, some are put in five-gallon tubs, others are packed up in sealed cans for shipment. Some are shipped in the shell. Others are pickled with spices and bottled. Near the seacoast they are delivered in the shell. They are then fresh for the table. Most people like them this way best. In Europe most people eat them raw. The oyster season begins in September and ends in April.

The lobster is used for food and always brings high prices. The lobster is found all along the Atlantic coast as far south as Delaware. The center of the trade extends from Massachusetts to Maine. Several million pounds of lobsters are taken from the waters along the Atlantic coast each year. It has become so extensive that it is an important industry. The lobster is caught in traps and kept in floating cages so that shipment can be made at any time. For shipment, they are kept in salt water. Boston and New York are the centers of trade for this industry. A great many are used in these cities. Many are shipped from these cities to other parts of the United States. However, they cannot be kept long out of the salt water. It is hard to keep them fresh when they are shipped a long distance away from the seacoast. The lobster is grayish-green, but when boiled it becomes brilliant red. Thus the expression "as red as a boiled lobster."

The crab is also used as food. There are many varieties of crabs, but the chief variety used for food is the blue crab. It lives in the water along the Atlantic coast. They are usually caught in traps or by lines. Crabs are shipped alive. They are usually packed in wet seaweed. From this they are taken out, one by one, and sold. Crabs are considered especially delicious when caught just after they shed their shell. The skin is smooth and soft, the small legs are tender, the flesh is firm and delicious. At this stage every bit of the crab can be eaten. At this stage, they are called soft-shells, and when caught with the shell on, they are called hard-shells. The crab meat

is considered a luxury and is not eaten by the common class of people.

The industry of obtaining food from the water is becoming more extensive each year. Better methods of obtaining the food are causing the fishermen to explore unknown waters and to find there many sea animals which can be used as food. The Government is making laws to protect the water animals so that the young will not be destroyed, but will be permitted to grow to maturity so that they will be more valuable as a food. The rivers are being protected and men are not allowed to catch fish by destructive means. The fish must be caught in such a way that the young will not be destroyed.

Nations are making laws by which their coast lines are protected from other nations intruding on the industry of fishing. This industry has become so important that nations vie with one another for the privilege of fishing. Some of them have deemed it so important that they have resorted to arms to settle disputes arising from this industry. The water area is coming to be as important as the land area. Some of it is more valuable. The time will come when it will be coveted as much as now is the land.

Frog Leg Industry in Canada

According to estimates which are reliable, tho not official, the frog-leg industry is worth to the Province of Quebec at least \$100,000 annually. During 1909 the Montreal markets disposed of over \$200,000 worth of frogs' legs, of which probably more than 50 per cent were produced in this Province. The local market prices averaged 40 cents per pound.

There are numerous rivulets and marshes in this Province in which frogs abound, and during the proper season many boys and men earn a fair livelihood catching frogs. Most of the shipments from this consular district go to Boston and New York.

The city of Birmingham, England, owns and operates an electric street-car system of 56 miles, traversing 34 miles of streets. The city also owns all the street-car tracks within its boundaries, but a number of these are still leased to private companies.

From January 1, 1907, to March 31, 1910, the street-cars earned a sufficient sum to contribute \$472,050 to the city treasurer for the relief of taxation. Before this sum was available all working expenses, interest, sinking-fund charges, and a liberal allowance for depreciation were deducted. The total capital expenditure of the city on tramways amounted to \$5,070,893, and for the year ended March 31 they contributed \$160,594 for the relief of taxation, or about 3.1 per cent on the capital investment. This would appear to be very satisfactory earning, when it is considered that it includes proper provision for repaying money borrowed to construct the system, as well as allowance for depreciation and for interest, and the payment of all working expenses, and particularly as the fares on the lines operated by the city are much lower than those in the United States.

Arbor Day Helps

What Trees Do

What do trees do?

They help to keep the air pure for man and the lower animals. How do they do this? I have just told you that trees are constantly changing mineral matter into vegetable matter. This is their special work.

The element of the air that makes it fit for breathing is a gas called oxygen. About one-fifth of the volume of the air is oxygen, and at every breath animals take in some of this oxygen and change it to carbonic acid gas. In other words, the oxygen that is breathed in combines with the carbon in the blood and this makes carbonic acid, which is breathed out into the air in place of the oxygen taken in. There is a small amount of carbonic acid gas in the air everywhere and at all times, and the usual amount is about one part in every 2,500 parts of air.

This carbonic acid is unfit for the breathing of animals and wherever it increases in the air, even to a slight extent above the amount usually found, animals cannot live. Trees and other plants prevent the carbonic acid from accumulating in dangerous quantities in ordinary air. They do this by absorbing this gas thru their leaves. It is their principal food. It makes trees grow, for a little more than one-half of the trunk and branches of every tree is carbon, and this all comes from the carbonic acid of the air.

You know what happens when we cut a tree down and burn it. The great mass or bulk of the tree passes into the air in the form of smoke and gas. A very small part remains in the form of ashes. Burning just undoes what growth did. The burning process was rapid, while growth was slow. But, roughly speaking, everything that went into the air when we burned the tree came from the air during its growth, and all that remained on the ground in the form of ashes came from the ground while the tree was growing.

Think for a moment how well fitted trees are for taking the carbonic acid from the air!

Suppose you carefully measure the upper surface of the leaf of an oak tree, multiply this by two, for the under surface has the same area; then multiply this by the number of leaves on the tree, and you can then form some idea of the enormous surface which the tree annually presents to the air for the removal of what to us is a dangerous gas.

Trees supply a large part of all the fuel in the world. The real wood of trees is of little or no use as food, but it does largely serve to cook our food and to protect us against cold. Even the coal dug from the earth, as well as the oil and gas now so generally used for fuel, come from vegetable matter and are largely the remains of

trees in forests that flourished before man existed on the earth.

Did you ever stop and think where the heat of fuel comes from?

Trees grow, or store up vegetable matter by absorbing carbonic acid. This is separated into carbon and oxygen before it can be used, and this separation takes place only in the presence of sunlight. With every particle of carbonic acid that is thus separated and with the new substance made by the tree for its growth, a certain portion of the sun's light and heat is absorbed. Thus, when we burn wood, the heat and light given out are just what was absorbed when the tree was growing.

I once heard a story of a boy who set out to catch a sunbeam—this may have been an interesting task, but certainly not an easy one, for a sunbeam can travel eight times around the world in a second, or 480 times in a minute. Yet the growing tree does catch the sunbeam, and holds it a prisoner until it is released by burning.

Trees give us wood, and wood furnishes us with building material, furniture, implements, utensils, tools and other useful things in great variety. Wood is one of the necessities of life. It follows us from birth to death. We are rocked in cradles made of wood; when we sit down it is in chairs or benches of wood; every day we eat from wooden tables; the papers and books that we read and study are printed on paper made from wood; whenever we ride out it is in a wagon, carriage or car made largely of wood. More than one-half of all the houses in the world are built of wood and the other half use wood for doors, floors, and other interior parts; nearly all barns are made of wood. We ship our fruits, vegetables and many other products in baskets, crates and barrels made of wood; we pack our butter and pork, and buy our nails and salt in firkins, kegs, or barrels of wood. When we die we are put in coffins made of wood. Next to our daily food wood is the most useful single product in the world. It is indispensable to our comfort, convenience, and happiness.

Trees furnish one of the most striking and permanent forms of beauty. What stately grace, what fine proportions, what variety of expression, and what unconscious dignity may be seen in well-developed trees. How they beautify and glorify every landscape! There is nothing more picturesque in nature than a clump or group of sycamores growing near a river bank and bending their mottled trunks and stretching their whitened arms toward the water, for which they show a peculiar fondness.

Trees improve the climate and conserve soil and water. Altho the influence of trees and forests on climate is not definitely known, we are beginning to feel the effect of an all too

reckless destruction of our woodlands. Springs and streams are failing that never failed before; soil drouths are more severe and protracted. Untimely frosts are more ruinous to all the more delicate fruits, and windstorms are more damaging than in former years.

The floods, that cause such loss of life and property in the river valleys, have followed the cutting off of the forests from the hills and the washing of the soil by the rapid running off of the rain and melting snow and are rapidly reducing the hills to rocky wastes and covering the fertile soil of the valleys with coarse sand and gravel. It is said that "Fire is a good servant but a bad master." The same is true of water. Uncontrolled water, like uncontrolled fire, changes a blessing into a curse.

Trees furnish safe shelter and natural resting places for birds. Birds are our best allies in fighting insects, but the removal of our forests has greatly lessened the number of insect-eating birds. Thus our insect enemies are increasing because the birds are becoming scarce.

The scarcity of birds is not entirely due to the cutting down of our trees. Many boys have the bad habit of shooting birds and robbing their nests. This ought to be stopped. The boy who shoots a bird or robs a bird's nest is robbing the farmer of a part of his crops. The best protection for insect-eating birds is plenty of trees.

Trees furnish a great variety of miscellaneous, useful products. Among these we may mention fruits, nuts, sugar, honey, tannin, pitch, turpentine, dyes and medicines.

As the only source of wood supply, trees touch the welfare of every man, woman, and child, but their influence goes much farther. It underlies the great questions of soil preservation and soil fertility; the use and control of streams and rivers; the water supply of towns and cities. In short, our civilization and progress as a nation are based very largely on trees. In the face of these facts we are still slashing down our trees most recklessly, with little or no regard to restoring them, or in any way making good the loss. There is no crime against nature that draws down a more certain or severe punishment than that of stripping the earth of all her trees.

Let us awake to the importance of planting trees and saving our forests. Let our boys and girls be incited and encouraged to gather the seeds of our most valuable trees. Begin this fall to gather chestnuts, hickory nuts, black walnuts, white oak acorns, the seed of the ash, wild cherry, locust, catalpa, etc., and keep at it till winter sets in. Plant a part of your seeds in some corner of the garden or in any rich ground where they are not likely to be disturbed. Keep the remainder in boxes of moist earth in a cool cellar until early spring and then plant them.

Another thing can be done this fall. Observe and make a note of the date at which trees lose their leaves. You will learn that the black wal-

nut, buckeye, and other well-known trees lose their leaves early in the season, while the leaves of the sugar maple, apple tree, and oak remain much later.

If you observe carefully, you will notice this interesting fact: The leaves of nearly all the different kinds of trees that have come to us from foreign lands hang on the trees much later than the leaves of our native trees. Compare the English or Scotch elm with our native elms; the Norway maple with our maples, and the European ash and linden with our ashes and linden or basswoods.—WILLIAM R. LAZENBY, in New York State Education Dept., *Arbor Day Annual* for 1909.

To Boys and Girls

How many trees do you know at once by sight as you walk along the roadside or thru the woods? Do you know the ash, the beech, the basswood and the horse-chestnut? Can you draw from memory the leaf of the oak, the maple, and the elm? Very likely you know the shag-bark hickory; but do you know the bitter-nut hickory and the pig-nut hickory common in our State? Of course you know a pine tree in a general way, but do you know a white pine from a red pine? Did you ever see a tamarack tree? Can you tell a spruce tree from a pine? How would you know a balsam fir? And so one might go on with questions. There are ninety-five native trees and twenty-one naturalized trees in the State of New York. Take account of your knowledge on Arbor Day and set about it to make more friends among the trees. To know them is to love them. Plant trees now and then even for your own pleasure in contemplating them when you grow old. You will thus add to the richness of your own lives and leave something worth while to those who come after you.—From *Arbor Day Annual*, N. Y. State Education Dept., 1909.

Destruction of Trees

Any fool can destroy trees. They cannot run away; and if they could, they would still be destroyed,—chased and hunted down as long as fun or a dollar could be got out of their bark hides, branching horns, or magnificent bole backbones. Few that fell trees plant them; nor would planting avail much toward getting back anything like the noble primeval forests. During a man's life only saplings can be grown, in the place of the old trees—tens of centuries old—that have been destroyed. It took more than three thousand years to make some of the trees in these Western woods,—trees that are still standing in perfect strength and beauty, waving and singing in the mighty forests of the Sierra. Thru all the wonderful, eventful centuries since Christ's time—and long before that—God has cared for these trees, saved them from drought, disease, avalanches, and a thousand straining, leveling tempests, and floods; but He cannot save them from fools,—only Uncle Sam can do that.—JOHN MUIR.

For Patriot Days

The Liberty Bell

I. PHILADELPHIA, 1776.

Squarely prim and stoutly built,
Free from glitter and from gilt,
Plain,—from lintel up to roof-tree and to belfry bare
and brown—
Stands the Hall that hot July,
While the folk throng anxious by,
Where the Continental Congress meets within the
Quaker town.

Hark, a stir, a sudden shout,
And a boy comes rushing out,
Signaling to where his grandsire in the belfry, waiting,
stands:—

"Ring!" he cries; "the deed is done!
"Ring! They've signed, and freedom's won!"
And the ringer grasps the bell-rope with his strong
and sturdy hands;
While the Bell with joyous note
Clanging from its brazen throat,
Rings the tidings, all-exultant,—peals the news to shore
and sea:

*"Man is man—a slave no longer;
Truth and Right than Might are stronger.
Praise to God! We're free; we're free!"*

II. NEW ORLEANS, 1885.

Triumph of the builder's art,
Tower and turret spring and start
As if reared by mighty genii for some prince of Eastern
land;

Where the Southern river flows,
And eternal Summer glows,—
Dedicate to labor's grandeur, fair and vast the arches
stand.

And, enshrined in royal guise,
Flower-bedeck'd 'neath sunny skies;
Old and time-stained, cracked and voiceless, but where
all may see it well;
Circled by the wealth and power
Of the great world's triumph-hour,—
Sacred to the cause of freedom, on its dais rests the
Bell.

And the children thronging near,
Yet again the story hear
Of the bell that rang a message, pealing out to land
and sea:

*"Man is man—a slave no longer;
Truth and Right than Might are stronger.
Praise to God! We're free; we're free!"*

III.

Prize the glorious relic then,
With its hundred years and ten,
By the Past a priceless heirloom to the Future handed
down.
Still its stirring story tell,
Till the children know it well,—
From the joyous Southern city to the Northern Quaker
town.

Time that heals all wounds and scars,
Time that ends all strifes and wars,
Time that turns all pains to pleasures, and can make
the cannon dumb,
Still shall join in firmer grasp,

Still shall knit in friendlier clasp
North and South-land in the glory of the ages yet to
come.

And, tho voiceless, still the Bell
Shall its glorious message tell,
Pealing loud o'er all the Nation, lake to gulf and sea
to sea:

*"Man is man—a slave no longer;
Truth and Right than Might are stronger.
Praise to God! We're free; we're free!"*

—BROOKS.

Scripture Selections

I.

1. I will praise the Lord with my whole heart, in the assembly of the upright and in the congregation.

2. The words of the Lord are great, sought out of all them that have pleasure therein.

3. His work is honorable and glorious: and His righteousness endureth forever.

4. He hath made His wonderful works to be remembered: the Lord is gracious and full of compassion.

5. He hath given meat unto them that fear him: He will ever be mindful of His covenant.

6. He hath shewed His people the power of His works, that He may give them the heritage of the heathen.

7. The works of His hands are verity and judgment; and His commandments are sure.

8. They stand fast forever and ever, and are done in truth and uprightness.

9. He sent redemption unto His people; He hath commanded His covenant forever: holy and reverend is His name.

10. The fear of the Lord is the beginning of wisdom: a good understanding have all they that do His commandments; His praise endureth forever.

II.

1. Rejoice in the Lord, O ye righteous: for praise is comely for the upright.

2. For the word of the Lord is right; and all His works are done in truth.

3. He loveth righteousness and judgment: the earth is full of the goodness of the Lord.

4. The counsel of the Lord standeth forever, the thoughts of His heart to all generations.

5. Blessed is the nation whose god is the Lord; and the people whom He hath chosen for His own inheritance.

6. Behold, the eye of the Lord is upon them that fear Him, upon them that hope in His mercy;

7. To deliver their soul from death, and to keep them alive in famine.

8. Our soul waiteth for the Lord: He is our help and our shield.

9. For our heart shall rejoice in Him, because we have trusted in His holy name.

10. Let Thy mercy, O Lord, be upon us, according as we hope in Thee.

General Information Questions

The following list of questions was recently given at a private school in Buffalo, as a general information test. Aside from a few local questions, there are not many which any "well-informed" person should not be able to answer offhand. Can your pupils answer them all? Can you?

- I. Write the date in Roman notation.
- II. Name, giving titles, the rulers of the following countries:
 1. Germany.
 2. England.
 3. Portugal.
 4. Belgium.
 5. Russia.
 6. Cuba.
- III. Name:
 7. The ex-King of Portugal.
 8. The Vice-President of the United States.
 9. The Governor-General of Canada.
 10. The Secretary of the Interior.
 11. The President of Williams College.
 12. The Governor-elect of New York.
 13. The Governor-elect of New Jersey.
 14. The Governor-elect of Pennsylvania.
 15. The Governor-elect of Massachusetts.
 16. The dominant party in the next Congress.
 17. Three prominent aviators.
- IV. Why was each of the following famous:
 18. William James.
 19. Winslow Homer.
 20. Count Tolstoy.
 21. George Meredith.
 22. Edward Macdowell.
 23. Samuel Clemens.
 24. Florence Nightingale.
 25. Julia Ward Howe.
 26. William Vaughn Moody.
 27. Algernon Swinburne.
 28. John La Farge.
- V. Mention some fact of interest connected with each of the following:
 29. Corea.
 30. Times building, Los Angeles.
 31. Ischia.
 32. Edinburgh.
 33. Montreal.
 34. The Hague.
 35. Belmont Park.
- VI. Locate:
 36. The City Hall.
 37. The Historical Building.
 38. The Public Library.
 39. Sleepy Hollow.
 40. Hall of Fame.
 41. Oberammergau.
 42. Marathon.
 43. Parthenon.
 44. Sistine Chapel.

VII. In what field was each of the following, lately added to the Hall of Fame, famous:

45. Harriet Beecher Stowe.
 46. Oliver Wendell Holmes.
 47. Edgar Allan Poe.
 48. Roger Williams.
 49. James Fenimore Cooper.
 50. Phillips Brooks.
 51. William Cullen Bryant.
 52. Frances E. Willard.
 53. Andrew Jackson.
 54. George Bancroft.
 55. John Lothrop Motley.
- VIII. What—
56. Is the latitude of Buffalo?
 57. Is the population of Buffalo?
 58. Are the largest three cities in the United States?
 59. Is the height of Niagara Falls?
 60. Is a contagious disease?
 61. Is a green stick fracture?
 62. Is the normal temperature of the body?
 63. Is the white plague?
 64. Is an antiseptic?
 65. Is the boiling point of water?
 66. Is the freezing point of water?
 67. Does the blood take from the air?
 68. Is the number of stars in our flag?
 69. Color is a ship's port light?
 70. Is a sloop?
 71. Is the metropolis of Russia?
 72. Is the largest South American City?
 73. Is the Third Commandment?
- IX. What country—
74. Is the world's banker?
 75. Was noted for its roads?
 76. Gave the world its best statuary?
 77. Has had the same President for twenty-six years?
 78. Contains the Peace Palace?
 79. Is called the "Playground of Europe"?
 80. Is the youngest European kingdom?
 81. First colonized the New World?
- X. Who—
82. Built the Ark?
 83. Interpreted Pharaoh's dream?
 84. Received the Ten Commandments?
 85. Led the Israelites into the Promised Land?
 86. Pulled down the Temple of Dagon?
 87. Slew the prophets of Baal?
 88. Preached in Athens the Unknown God?
 89. Wrote the book of Revelation?
 90. Was China's great religious teacher?
 91. Was Emperor of Rome 1 A.D.?
 92. Gave the Koran?
 93. Was the great Hindu prophet?
 94. Was the greatest Greek sculptor?
 95. Painted the Mona Lisa?
 96. Raised the siege of Orleans?

97. Was the author of "The Divine Comedy"?
 98. Was the author of the Declaration of Independence?
 99. Was the author of "Faust"?
 100. Was the author of "Paradise Lost"?
 101. Was the author of "Les Miserables"?
 102. Composed "The Creation"?
 103. Composed "Lohengrin"?
 104. Said "Veni, vidi, vici"?
 105. Said "L'Etat c'est moi"?
 106. Said "England expects every man to do his duty"?
 107. Said "Give me liberty or give me death"?
 108. Met at the Field of the Cloth of Gold?
 109. Represented the American colonies at Versailles?
 110. Discovered radium?
 111. Defeated the Moors 732?
 112. First sailed up the St. Lawrence?
 113. Financed the American Revolution?
- IX. Identify by author and work the following quotations:
114. "And the stern joy which warriors feel
In foemen worthy of their steel."
 115. "The mountain nymph, sweet liberty."
 116. "Once upon a midnight dreary,
While I pondered weak and weary."
 117. "Mine eyes have seen the glory of the
coming of the Lord."
 118. "O wad some power the giftie gie us
To see oursels as ithers see us."
 119. "Theirs not to make reply,
Theirs not to reason why,
Theirs but to do and die."
 120. "That Government of the people, by the
people and for the people shall not per-
ish from the earth."

Bohemia of To-Day

By LUDMILLA VOJACEK

Not until I came to London and saw a picture of camping gypsies entitled "Bohemians," did I realize that our nation was called by any other name except as the French designated us, "Les Tscheques," derived from Cechy. This latter is the actual name of Bohemia, or Böhmen, from the Latin Bojohemum, the home of shepherds, the German derivation from "Boii," the Celtic race who preceded the Slavs. Since then I have realized more and more what phantastic and romantic ideas the term "Bohemian" implies. And yet the real "gypsies" are an entirely different race from us, and for very good reasons we keep as much aloof from them as you do.

After the fatal battle of the White Mountains in 1620, when all the best blood of the nation went into exile, the Bohemians became known as a wandering people, without worldly possessions or home. Then there always were and still are more artists, especially in the profession of music, than is for the material good of the country or of the musicians themselves. These take their flight, like migratory birds, out into the world.

Alphonse Mucha, our great Moravian artist, explains the term Bohemian on the following historical basis: Louis XI had a daughter, Blanche, who married Charles IV, king of Bohemia. Up to that time everybody going to France had to pay a certain tax. Queen Blanche, beloved by the Bohemian people, wished to bring them some gift when ascending the throne, so she gave permission to all her people to enter France without paying duty. The Bohemians, however, made very little use of this privilege, being too fond of their native country. But all the other people from every part of Europe speaking a foreign language just had to say they were Bohemians and they were admitted under that title.

But Bohemia was once a great kingdom which extended clear across northern Germany, and everything was to be found there except salt. Now only Moravia and Silesia belong to the kingdom, and everything has been taken away from it except music. In its capital, "Praha, the Rome of the north," as Rodin calls it (commonly called Prague, by the English-speaking people, from the French "Prague"), was situated the first university of central Europe, with over twenty thousand students enjoying its privileges. One of its rectors was one of the world's reformers, Jan Hus, and his best friend, Jeronym of Prague. Perhaps the greatest warrior for an ideal cause was Zizka, who fought in the Hussite wars. One of the greatest of modern pedagogs was a "Bohemian Brother," Amos Comenius, author of "The Labyrinth of the World," and "Paradise of the Heart." The famous astronomers, Ticho de Brahe and Copernicus, were constant guests at the court of King Rudolph II. In Bohemia was the first botanical garden of the world, and in 1791 the first systematically arranged exhibition took place in Prague.

Prague, "The Beleaguered City" of Longfellow, was also the cradle of modern journalism, the first newspaper of the world having been printed there in 1500; it was full of the wars with the Turks. As a literary language, Bohemian has been subject to culture from about the ninth century. The speech is very like the Polish, and resembles the Russian. It is very rich and therefore difficult, with its seven cases and its many softened consonants. It is said to be next to the Italian in musical beauty.

During the religious wars a very fine literature sprung up, naturally of a serious character. We have very gifted poets and writers. Count Lutze has written a great deal concern-

ing Bohemia in the English tongue, and he finds "a morsel of history in every stone." The fascinating novel of Marion Crawford, entitled "The Witch of Prague," portrays wonderfully the majesty of the "city of a hundred towers, whose fame is once to reach the skies," according to a prophecy. It was in our old city of Prague (Praha in Bohemian) that Mozart composed his Don Juan and Weber placed the action of his Freischütz. It was in the Bohemian mountains that Wagner found inspiration for some of his greatest operas. Gluck supported himself during his student time as pupil of Czernohorsky, "the Bohemian Bach," by playing in our villages, and here "Papa Haydn" wrote his first symphony.

No wonder that Prague was looked up to as "the conservatory of Europe." At the coronation of Charles VI a hundred of the best singers of Italy were present, with Tartini, Veracini and Conti at the head of the feast. (Speaking of Tartini reminds me of the fact that the violin has been the favorite instrument of Bohemia for over six hundred years.) As an instance of our love for music, it is said that the old composer, Bozan, died of joy at the news that his collection of national religious songs had been printed. This was in 1719. Our folk songs are full of pathos, wit, and rhythm. The polka rhythm is perhaps the most characteristic, and is said to have been invented by a Bohemian servant maid in 1830. Then there are the wild Furiant, in three-eighths time, which Dvorak so often introduces in his symphonies instead of the Scherzo, the "Dupak" (stamping dance), "Medved" (the bear dance), "Slepicka" (the hen dance), and numerous picturesque and melodious dances.

The first Bohemian opera was written in 1825 by Skroup. Its title was "Dratenik" (a Slovak tinker). Skroup is also the composer of our national song, "Where Is My Country," but Smetana is the father of modern Bohemian music. Anton Dvorak was a musician "by God's grace," and wherever he remained true to his instinct he was greatest.

A real contrast to this man of nature was the highly intellectual Zdenko Fibich. Schumann was his ideal and Fibich brought the melodrama (recitation with music) to its highest form.

Among our younger composers are Förster, Novak. Weiss (the composer of our first ballet), Suknedbal, the Ondriceks (pupils of Smetana), Bondl, Friml, Kaftan, late pupil of Fibich's, and a great many other talented followers of this new school.

Since Kubelik has shown the world what a good master, like Professor Sevcik, can do for a good pupil, our city has become the "Mecca" for violinists.

Camphor Up to Date

In *Harper's* for February, Professor Robert Kennedy Duncan tells how the great camphor industry has been recently revolutionized by a simple discovery

Heretofore the camphor had been extracted from the wood of the tree and its branches, thereby destroying the tree. Dr. Duncan, after visiting Jamaica, found a new method by which the tree is preserved and an annual crop guaranteed.

"In order to solve these questions I brought back with me to the University of Kansas nearly a ton of material, which we worked up to the last ounce. We extracted the best of the camphor and the oil of camphor from the wood of the trunk, from the branches, the twigs, the green leaves, the dry leaves, and the dead leaves, and we obtained results which afforded us profound astonishment and great joy. We thought we had made a great discovery, and as a matter of fact we had, 'tho, unfortunately for us, these results had just been anticipated by the work of Messrs. Campbell and Eaton in Malaya, and by the director of the Biological Station at Amani, East Africa. Since, however, our results absolutely confirm the work of these gentlemen, and since they are so important to the whole great camphor-growing industry, I give them here. As a matter of fact, and speaking in averages, our results analyzed out as follows:

Wood	0.61%	of Crude Camphor
Twigs	1.05%	of Crude Camphor
Green Leaves	2.37%	of Crude Camphor
Dried Leaves	2.52%	of Crude Camphor
Dead Leaves	1.39%	of Crude Camphor

"These results are extraordinarily high, owing partly to the fact that the material had undergone a considerable amount of drying in its long transport from Jamaica to Kansas, and partly, too, I believe, to the ideal conditions that obtain in Jamaica for the growth of essential oils. But it is the proportional amounts to which I draw attention. The wood of the camphor tree contains an insignificant fraction of the camphor contained in the green, dry, and dead leaves. This is to be correlated with the indisputable fact, as proved by Mr. Malcolm, of Jamaica, and others the world over, that the leaves can be harvested regularly without any injury to the tree. These two facts, taken together, place both the huge camphor monopoly of Japan and its synthetic manufacture in Germany and elsewhere in a position that would be laughable were it not rather pitiful. Both types of organization proceeded on the assumption that the centuries-old traditional method of extraction was the only one. In order to continue it, the Japanese felled only trees fifty years old, and extracted the drug from the wood only, leaving the leaves out of consideration. In order to carry out this destructive work, they ran deadly electric wires thru the forests to keep out the savages, they placed armed men with every camp of camphor-workers, and they paid these workers ninety cents a day for a native Formosan and \$1.99 a day for a Japanese. The price of labor in Jamaica is a shilling a day. Now, as a matter of fact, in a five-year-old tree the mass of its leaves weighs 7.05% of the total bulk of the tree. The proper method, therefore, without destruction to the tree, is to regularly harvest its leaves for their excessively large camphor content; costly expeditions into savage interiors and the total destruction of mature trees are wholly unnecessary."

The World We Live In

A bill has been passed by both houses of Congress, creating a special committee to decide on some suitable form for a suitable memorial to Lincoln, and devoting \$2,000,000 for the purpose.

The largest submarine boat yet built in this country was launched recently at Newport News, for our navy. She is 161 feet long. Her surface speed will be 14 knots, and her under-water speed $9\frac{1}{2}$ knots.

Mrs. Elizabeth Stuart Phelps Ward, the well-known writer, died on January 29, at the age of sixty-six years. "The Gates Ajar," perhaps the most successful of her books, was published when she was only twenty-four years old. The complete list of her books includes about forty titles.

Mr. Andrew Carnegie has given \$10,000,000 to the fund of the Carnegie Institution, at Washington. To this institution, which he founded in 1902, he had already given \$15,000,000.

The Duke of Connaught is to succeed Earl Grey as Governor-General of Canada. He will enter upon his duties next September. The Duke is an uncle of King George.

Sand and gravel cost \$13,000,000 last year, and ranged from 10 cents to \$20 per ton. Prices for grades used in making concrete run as high as \$1.50 per ton. Grades for certain kinds of glass cost as much as \$20. Gravel for roofing is worth as much as three dollars a ton. The uses of all kinds and grades are multiform.

Cats are to be shipped to Washington to save the

gardens of that State from gophers. A letter was received at Sharon, Pa., asking for 1,000 cats at a fair price. It is expected that 5,000 will be shipped by April 1.

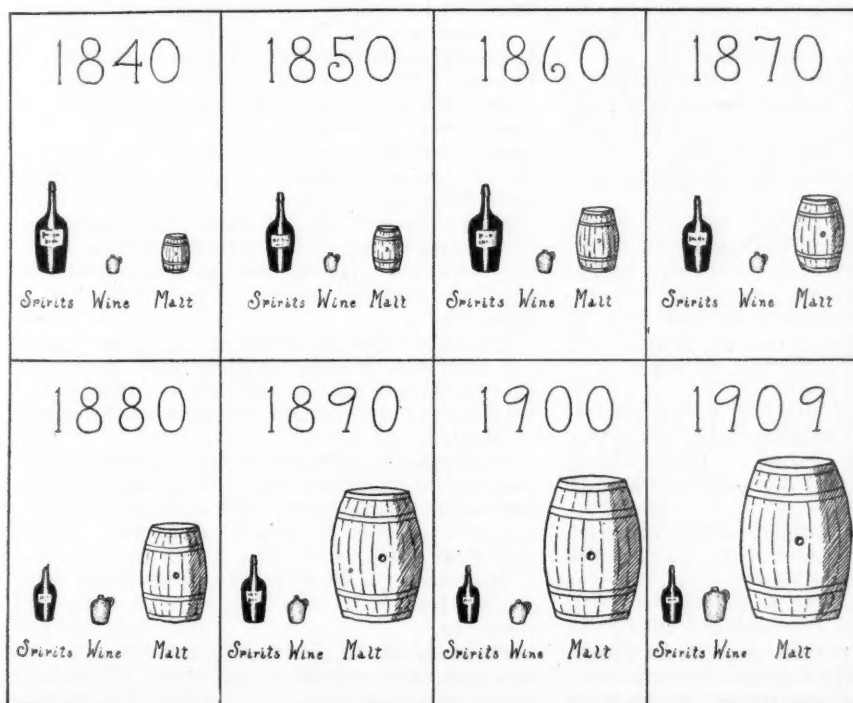
A pamphlet, to be prepared by Columbia University professors for distribution to public libraries thruout the country, will give a list of the best books on subjects taught in college. The purpose is to give those who have never been to college and who would like to undertake a reading course on college subjects a list of the books used in the courses at Columbia. The donor of the gift is Chester Dewitt Pugsley, of Peekskill, N. Y., a graduate of Harvard, 1909.

The death rate in the United States has been cut down nearly ten per cent in the past decade. Some 20,000 babies are being saved from death each year, by receiving better care.

Oil of lavender sprinkled about the shelves will keep books from mildewing.

For felling trees with as little waste as possible a German has devised a machine which cuts thru the trunks by the friction of a steel wire, driven by an electric motor.

A wild animal farm is being run by a boy at Imboden, Ark. He captures opossums, raccoons, foxes, and polecats in the summer and fall and keeps them in woven-wire pens. He feeds them well and in the winter kills them and gets a high price for them, as his animals yield better fur than those shifting for themselves in hunger in the woods.



Comparison of amounts consumed, from 1840 to 1909, of spirits, wine, and malted liquors.

Courtesy of *The Independent*.

Quarterly Review of Current Events

November 1.—The Czar approved a measure to extend the zone of residence of Jews in Russia.

November 2.—Prof. William Henry Brewer, of the Sheffield Scientific School, died, aged 82 years.—The military forces of Portugal threatened to overthrow the provisional government, unless certain promotions and pensions were granted.

November 3.—Fifty Jesuits, the last members of religious orders in Lisbon, were driven from Portugal.—Chicago's first grand opera season was opened.

November 4.—It was announced that the first Chinese Parliament will be convoked in 1913.

November 5.—The Interstate Commerce Commission upheld the advances in freight rates in the southeastern territory.—The Portuguese Government granted amnesty to political offenders, and reduced by a third the sentences of criminals.—The refusal of the German potash syndicate to concede to proposals from America caused fear of a tariff war with Germany.—Lyman C. Smith, the typewriter manufacturer, died.

November 6.—The Nobel Prize in physics was awarded to Johannes Diderik Van der Wals, of Amsterdam.—An arrangement was made between the Turkish Government and German bankers to float a loan of \$31,500,000.

November 7.—Negotiations between the Brotherhood of Locomotive Engineers and the general managers of sixty-one railroads operating west of Chicago were broken off.

November 8.—Election day: Representatives in Congress, State officers and legislatures were chosen in a large number of States.—Charges of discrimination in freight rates were made by lumber companies against the Harriman railroad lines.

November 9.—The British, French, Spanish and Italian ministers in Portugal announced that they were authorized to establish negotiations with the provisional republican government.—Twenty-six persons were convicted of conspiracy to kill the Japanese Emperor.—President Taft left Washington on his tour to inspect the Panama Canal.

November 10.—The first series of conferences between the Canadian and American trade commissioners ended.—The express strike in New York and Jersey City came to an end.

November 12.—The Chilean cabinet resigned.

November 14.—President Taft reached Colon, Panama.—The rebellion in Uruguay was suppressed by Government forces.—The Nobel Prize in literature was awarded to Paul Heyse, the German poet and novelist.—John La Farge, the eminent painter, died, aged 75 years.

November 15.—Wilhelm Raabe, the German novelist, died, at the age of 79 years.—It was

decided by the Supreme Court of Oklahoma that the capital of the State should be Guthrie.

November 16.—President Taft inspected the Culebra Cut, and dined at Panama with President Arosemena.—The French Government acceded to the American proposition to refund the debt of Liberia.

November 17.—Earl Grey, in opening the Canadian Parliament, read a speech from the throne expressing the hope that reciprocity negotiations with this country would be successful.

November 18.—It was announced in the British House of Commons that parliament would be dissolved on November 28 if the Lords rejected the veto bill.

November 19.—A severe earthquake shock was felt at Martinique, but no damage resulted.

November 20.—Count Leo Tolstoy, the Russian novelist, died, at the age of 82 years.

November 21.—The principal members of the firm of Burr Brothers, of New York, were arrested by post-office inspectors, charged with selling fraudulent stocks to the extent of more than \$1,000,000.—Insurrection broke out in the northern provinces of Mexico.

November 23.—President Taft returned to Washington.—It was announced from St. Petersburg that Manchuria was infected with the bubonic plague.

November 25.—A number of earth shocks were felt in Spain.

November 26.—Samuel Gompers was re-elected president of the American Federation of Labor.

November 27.—The Pennsylvania Railroad began train service into New York City, formally opening the tunnels under the Hudson River.—Michael Cudahy, the pork packer, died, aged 69 years.

November 29.—The third annual conference of Governors began its sessions at Frankfort, Ky.—Matthew Henry Buckham, president of the University of Vermont, died, at the age of 78 years.

December 1.—The existence of trade in rotten eggs was brought to light thru investigation by New York City officials.—Porfirio Diaz was for the eighth time inaugurated President of Mexico.

December 3.—President Taft appointed Senator Root to membership on The Hague tribunal.—Mrs. Mary Baker Glover Eddy, founder of the Christian Science Church, died, at the age of 89 years.

December 4.—Storms in several of the Philippine Islands caused the loss of lives and property.

December 6.—The French Chamber of Deputies voted \$1,160,000 for the relief of sufferers from the recent floods.

December 7.—The Ballinger-Pinchot investi-

gating committee reported, exonerating the secretary.—The Supreme Court of Germany ordered the Reichsbank to pay to Turkey the \$4,500,000 which it had on deposit to the credit of the deposed Sultan, Abdul Hamid.—Prof. Ludwig Knaus, the German painter, died, aged 81 years.

December 9.—The proposed Constitution for the State of Arizona was signed by the delegates.—George W. Perkins resigned from the firm of J. P. Morgan & Co. to devote himself to corporation interests and to solving the problems of capital and labor.—Princess Louise of Belgium brought suit to recover \$8,000,000 which belonged to her father, the late King Leopold.

December 10.—Puccini's opera, "The Girl of the Golden West," was sung for the first time, in the Metropolitan Opera House, New York City.

December 13.—The House of Representatives passed the Pension appropriation bill of \$153,600,000.—Floods in the northern part of Italy isolated many villages.

December 14.—Andrew Carnegie gave \$10,000,000 for the promotion of international peace.

December 15.—The American Society for the Judicial Settlement of International Disputes met in Washington.

December 16.—Melville De Lancey Landon ("Eli Perkins"), the humorous writer, died, at the age of 71 years.—Continuous rains in England caused the flooding of large areas.—Post-office inspectors raided many "get-rich-quick" concerns in Pennsylvania, arresting nineteen persons.

December 17.—The editions of four daily newspapers in Russia were confiscated, because they printed a radical speech made in the Duma.

December 18.—It was planned to form a combination of Central and South American republics, for the purpose of abolishing revolutions by the creation of an international police.

December 19.—An explosion of gas in the Grand Central tunnel, New York City, killed ten persons and injured 120.

December 20.—A petition for the "recall" of Mayor Gill, of Seattle, was signed by 11,000 voters.—John D. Rockefeller made a final gift of \$10,000,000 to Chicago University.

December 22.—The French Government planned to prevent strikes among public-service utilities by compulsory arbitration.

December 23.—The Emperor of Japan emphasized the necessity of maintaining peace.

December 24.—The American Sugar Refining Co. agreed to refund to the Government moneys held back, to the amount of \$700,000.

December 26.—President Taft approved the expenditure of \$20,000,000 for reclamation work in the West.

December 27.—The Northern Bank of New York City, with nine branches and deposits of nearly \$7,000,000, was closed by the State banking officials.

December 28.—Benn Pitman, the pioneer shorthand reporter, died, at the age of 88 years.

December 31.—It was announced from Berlin that Andrew Carnegie had given \$1,250,000 to establish a hero fund in Germany.—President Taft authorized official recognition of the new Government in Nicaragua.

January 1.—King Alfonso renewed his confidence in the ministry.

January 2.—The Iowa Railroad Commission ordered a reduction in express rates of from 5 to 20 per cent.

January 3.—The United States Supreme Court dismissed the Government's Panama Canal libel suit against the New York World.

January 4.—Senator Stephen B. Elkins, of West Virginia, died, at the age of 69 years.

January 5.—Both houses of Congress reassembled after the holiday recess.

January 7.—It was announced that Oscar Straus had resigned as ambassador to Turkey; W. W. Rockhill was appointed to succeed him.

January 8.—The electric and telephone plant of Santiago, Chile, was destroyed by fire, with a loss of \$2,000,000.

January 9.—The rearrangement of the Government's suit to dissolve the Tobacco Trust was begun in the United States Supreme Court.

January 10.—The House of Representatives passed the Sulloway Pension bill, which adds \$45,000,000 each year to the pension roll.—Boston declared in favor of license, by a vote of 36,855 to 17,420.—James A. Farrell was elected president of the United States Steel Corporation.

January 11.—Emilio Estrada was elected president of Ecuador.

January 12.—President Taft, in a special message to Congress, asked for \$5,000,000 to start the work of fortifying the Panama Canal.—An earthquake in Asiatic Russia was believed to have killed 250 people.—Mr. Henry Burr Barnes, the publisher, died.

January 14.—It was announced from Washington that an agreement had been made with Canada regarding the fisheries question.

January 17.—Sir Francis Galton, the noted English explorer and writer, died, at the age of 89 years.

January 19.—The Congress of Paraguay accepted the resignation of President Gondra, and elected Colonel Jara to succeed him.—Paul Morton, president of the Equitable Life Assurance Society, and ex-Secretary of the Navy, died, at the age of 54 years.

January 20.—The American and Canadian reciprocity commissioners reached an agreement.

January 21.—Senator Carter spoke in opposition to the resolution calling for the direct election of senators.

January 22.—In a speech before the Pennsylvania Society of New York City, President Taft made a plea for the fortification of the Panama Canal.

January 23.—Madame Curié was defeated for membership in the French Academy of Sciences.

January 24.—David Graham Phillips, the novelist, died from a pistol shot fired the previous day by an insane man.

January 26.—Sir Charles Dilke died in London.—A Canadian reciprocity agreement was sent to Congress by President Taft, with a message urging its approval.

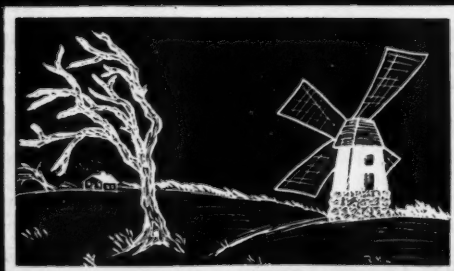
January 28.—The Canadian reciprocity bill was introduced in the House.—At the request of President Taft, the Diamond Match Co. can-

celled its patent on the use of sesqui-sulfid in matchmaking.

January 29.—Mrs. Elizabeth Stuart Phelps Ward died, at her home in Newton, Mass., at the age of 66 years.—The Portuguese Government granted a pension of \$3,300 a month to ex-King Manuel.

January 31.—The 20 per cent reduction in the price of upper berths in Pullman sleeping-cars went into effect.

February 1.—The British super-dreadnought "Thunderer" was launched on the River Thames.



MARCH

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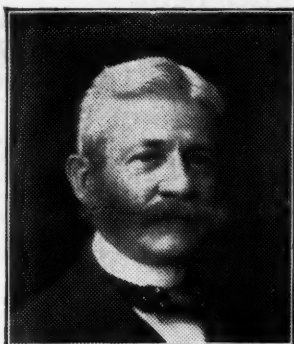
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A Pigeon Farm

Travelers approaching Los Angeles from the north over the Southern Pacific Railroad are astonished sometimes at seeing from the car windows flocks of pigeons numbering many thousands just on the outskirts of the Angel City, says *The World's Chronicle*. These belong to the world's largest pigeon farm, owned by T. R. Johnson.

The pigeon farm consists of about eight acres of sandy, gravelly land, along the bed of the Los Angeles River—a "river" only by courtesy during the long, dry summer months, when it becomes practically a mere rivulet.

The farm was established about ten years ago on a comparatively small scale, but the venture proved so profitable that the owner developed the business along lines such as have marked the growth of other great modern industries, until he claims now to have more than 100,000 fully grown pigeons in his establishment, not to mention tens of thousands of squabs.

The pigeons are housed in six large buildings, the main building being 60 feet long, 30 feet wide, and 20 feet high. The exterior and interior of each of these buildings are banked up solidly with boxes in tiers, narrow aisles giving ready access to every nest. Almost all the birds are pure white.

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Three small volumes of "Poetry for Schools" contain carefully selected groups of poems suitable for reading, study, and memorizing by children in the school grades for which each book is intended. Accompanying each poem are brief paragraphs suggesting the qualities for which the poem is distinctive. Miss Florence Holbrook, who has arranged the poems, is a sympathetic guide to the young reader of poetry. She gives just the sort of explanation and interpretation that the children need. Price, 20 cents each. (Charles E. Merrill Company.)

The "Studies in Reading," by Professor Searson and Superintendent Martin, of the Nebraska City Schools, is a collection of some of the most inspiring of the shorter poems in the English language, intended to afford means whereby the readers may gain a more intelligent appreciation of these short masterpieces of poetry. They cover a wide range and appeal to every variety of emotion. To increase the value of this book an introduction and suggestive questions with references to similar poems for purposes of comparison and

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study, are added. It is a book that should find a place in every teacher's library. (The University Publishing Company, Chicago, Ill.)

A new edition of Charles Mills Gayley's "Classic Myths in English Literature and Art" has just been issued. This very excellent book is so well known that its purpose hardly needs mention. Suffice it to say that it serves to familiarize pupils with the best-known myths, classic and Norse, and the uses to which they have been put in literature and art. In the new edition the order has been altered in accordance with suggestions from teachers, and many improvements have been made. (Ginn & Co., Boston.)

"Systematic Moral Education," by John King Clark, is the kind of book that teachers have long been looking for. It is a sensible treatment of a difficult subject, and is the first book in this field which tells the teachers exactly what to embody in a course of moral training. Price, \$1.00. (The A. S. Barnes Company, New York.)

"The Study of History in the Elementary Schools" is a report to the American Historical Association, by the "Committee of Eight." It comprises outlines for study of American history in each of the eight elementary grades, together with suggestions on the preparation of the teacher, etc. The report deserves a place on the desk of every history teacher. (Charles Scribner's Sons, New York.)

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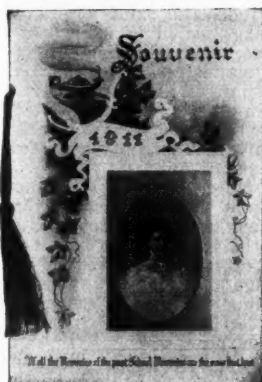
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"Elements of Geology," by Eliot Blackwelder and Harlan H. Barrows, possesses in a high degree the quality of teachableness. The volume is divided into two parts, physical geology and historical geology. An adequate discussion of the leading modern conceptions concerning the origin and early development of the earth is presented. English names are used for fossils

wherever practicable. The illustrations and maps, which are unusually numerous, really illustrate the text and are referred to definitely in the discussion. The bibliography at the ends of many of the chapters affords a guide to more extended discussions and special articles. Price, \$1.40. (American Book Company, New York.)

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A DECIDED SUCCESS was our plain, engraved souvenir last year. The large number we sold convinces us that the teachers are looking for something artistic rather than a highly colored souvenir. The engraving herewith shows our new design which is engraved in a rich photo brown ink. The word "Souvenir" instead of being in brown like last year is embossed in gold which gives it a richer appearance. At the top appears the date "1911" which was not on last year. Around the photo is a very beautiful frame embossed in plain white which is another feature our last year's style did not possess. The photo is same size as last year's being $1\frac{1}{2} \times 2\frac{3}{4}$ inches. These souvenirs were especially designed for the higher grade teachers and also those of lower grades who do not care for anything so flashy. We also have the highly colored souvenirs and will be pleased to send you samples of our full line upon receipt of a 2c stamp.

The size of souvenir is $3\frac{1}{2} \times 5$ inches and contains 12 pages including the cover and the inside contains a small poem entitled "Close of School" (not the one we used last year) together with other appropriate matter. We print for you the name of your school, district number, township, county, state, school board, teacher and scholars, which matter you must send us when you order. We furnish these souvenirs with or without photo of teacher or school house. If photo is wanted you must send us a photograph of yourself or school house and we will make a small photo to appear on each souvenir. We can copy a large or small photo, but if you want the best results, send us a good clear photo that is not too small. Your photograph will be returned uninjured. Photos are guaranteed to be first-class and they will not fade. Note: The photos we use on our souvenir style 9 are much larger than the ones we have been making, being $1\frac{1}{2} \times 2\frac{3}{4}$ inches and we think you will find them larger than any others obtainable. This is one of the good features of our new design and we are sure you will be more than pleased with the Photo.

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Dear Sirs:—They were entirely satisfactory. In fact, they are the best I have ever seen in that line of work. Therefore, I intend to patronize you in the future and recommend your work to my fellow-teachers. Yours sincerely,
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Federal Grant

The following resolutions were passed unanimously by the House of Representatives of the Illinois Legislature on January 18, 1911:

WHEREAS, The legislature of Illinois, by the joint resolution of February 8, 1853, was the first among American legislatures to petition the Congress of the United States to make a grant of public land for each State in the Union for the liberal endowment of a system of industrial universities, one in each State, to promote the more liberal and practical education of our industrial classes and their teachers; and,

WHEREAS, The Congress not only made a liberal grant of land in the year 1862 for this purpose, but has also followed up this policy once begun by still more liberal appropriations for the support of higher education in agriculture and the mechanic arts, resulting in the great chain of colleges for agriculture and the mechanic arts to be found in every State and Territory in the Union; and,

WHEREAS, The time has now come for the adoption of a similar policy in the field of elementary and secondary education; therefore, be it

Resolved, By the House of Representatives of the State of Illinois, the Senate concurring herein, that the Congress of the United States be respectfully petitioned to appropriate annually to each State and Territory in the Union a sum equal to one dollar per head of the population of said State or Territory as ascertained by the last census, for the purpose of establishing, maintaining and extending in the elementary and secondary schools of said States and Territories, while not excluding other elementary and secondary subjects, such practical, industrial and vocational training, including agriculture, the mechanic arts, domestic science, manual training, commercial subjects and such instruction in other similar subjects of a practical nature as the interests of the community may seem to demand; and

Resolved, further, That our Senators in Congress be instructed and our Representatives be requested to use their best exertions to procure the passage of a law of Congress donating said sum to each State and Territory in the Union for said purpose: and

Resolved, further, That the Governor of this State is hereby requested to forward a copy of the foregoing resolutions to our Senators and Representatives in Congress and to the executives and legislatures of each of the other States and Territories, inviting them to co-operate with us in this meritorious enterprise.

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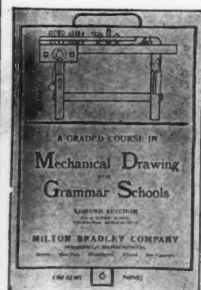
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EDWIN E. HOWELL, 612 17th St., N. W., Washington, D. C.

Commissioner HARRIS says: "Every school in the United States, in my opinion, should have these collections."

In answering advertisements please mention "The School Journal."



Health of Pupils

Measures have been taken at Washington to persuade parents to see that the health of children is more carefully looked after. A circular giving practical health hints has been given to each of the nearly 60,000 pupils attending the public schools. Here are the main recommendations made:

Food should be taken not oftener than once in four hours. If a child is allowed to go to school without a wholesome, warm breakfast, it is done at a positive injury.

Food, if it is to be properly swallowed, should be thoroughly and slowly chewed. Most children are inclined to eat too much meat.

If sweets are allowed only at the close of meals, and only in limited amounts, and are forbidden altogether between meals, there will be much less sickness from disordered digestion.

The growing child should not be allowed to drink tea or coffee. Children should drink water freely between meals, rather than at meal time.

The more a child can be out of doors the better for health. If a child is warmly clothed and does not sit or stand around a direct draft, there is no danger from fresh air. The best temperature in a living-room is 70 degrees, and for a sleeping-room 55 degrees. There is no danger from a cold bedroom.

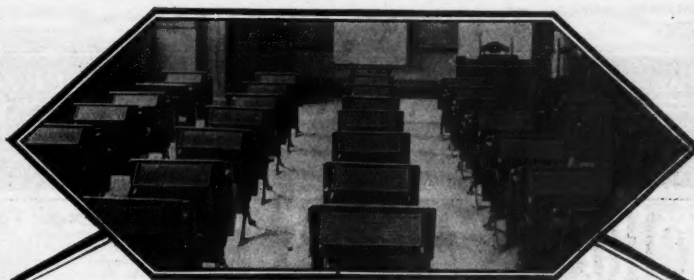
For a child's health, nothing is more important than cleanliness. House flies and mosquitoes are active agents in the transmission of disease. The hands should be frequently washed. The entire body should be carefully washed at least two or three times a week.

The teeth should never be used to crack nuts or to break any hard substance. Food should be near the temperature of the body. The teeth should be carefully cleaned at least twice a day—after breakfast and before going to bed.

Defective eyesight increases as the children go on in school. This handicaps the child in his studies and causes many headaches. Defective lighting should be avoided in schoolrooms and home. There should be so much natural light that the eyes should not be strained even on cloudy days.

Keep the ears clean by the use of soft cloths. Do not thrust any hard substance into them. If anything gets lodged in the ears, consult a physician. Children who breathe thru the mouth are peculiarly liable to disease.

Clothing should interfere as little as possible with the free, natural movements of the body, or with free, full breathing. Protection from dampness and wet feet is very important.



Abate the Dust Evil

It has been proven beyond a shadow of doubt that many diseases of school children can be traced directly to the dusty condition of schoolroom floors. Dust carries the germs of disease. The constant change of classes and the ever moving feet of the pupils cause the dust to rise from the floor and circulate through the air. Proper ventilation aids materially in getting rid of dust, but so long as the floors remain dry and untreated the danger will still exist.

Hygienic conditions and dustless schoolroom floors can be had at small cost. By treating floors three or four times a year with

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dust can be practically eliminated. Experience proves that Standard Floor Dressing reduces dust over *eleven-twelfths*, so that with dust abated and the atmosphere cleansed the chances for contracting diseases are reduced proportionately.



Standard Floor Dressing not only makes sanitary schoolrooms, but also preserves the floors. Prevents them from cracking and splintering and at the same time lessens the cost and labor of caretaking.

Standard Floor Dressing is sold everywhere in barrels, half barrels, and in one gallon and five gallon cans. *Not intended for household use.*

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We want to prove the efficiency of Standard Floor Dressing at our own expense. We will treat free of charge one schoolroom or corridor how Standard Floor Dressing eliminates dust. To localities far removed from our agencies, we will send free sample with full directions for applying.

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Good, wholesome work, bodily or mental, seldom hurts a person. But for children, especially young children, work should be broken by intervals of play. If a child worries about his work, the cause for worry should be found and then removed.

No child under 12 years of age should sleep less than 10 hours out of the 24, and those who are over 12 need 9 hours of sleep. A healthy child sleeps quietly thru the night. Dreams and restlessness indicate that there is something wrong.

Remington Luncheon

One of the most enjoyable social features of the last convention of the National Commercial Teachers' Federation, held in the Auditorium Hotel, Chicago, was the luncheon tendered to the Federation by the Remington Typewriter Company.

About 500 people sat down to this luncheon, which was spread in the Lodge Banquet Hall of the Auditorium. The leading speaker of the evening was the Rev. Dr. Frank S. Gunsaulus, president of the Armour Institute of Technology. The theme of his speech was that the civilization of the future will be the civilization of the typewriter rather than that of the automobile. Dr. Gunsaulus was followed by Mr. J. T. Thornton, manager of the Remington Typewriter Company's Chicago office.

This luncheon was in every way a highly successful function. A resolution was passed by the Federation thanking their hosts for the entertainment provided. It is safe to say that everyone present will long remember the "Remington Luncheon" at Chicago.

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 Twenty-first year, same manager. Has served thousands of teachers and employers. Recommends teachers all the year round. First class High School and other high grade teachers always ready. Write, telegraph or 'phone.

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 of vacancies and tells you about them and recommends you that is more. Ours

is valuable in proportion to its influence. If it merely hears is something, but if it is asked to recommend a teacher

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In answering advertisements please mention "The School Journal."

An interesting pamphlet entitled "How to Make the Farm Pay More" is published by the American Farmers' School, 36 Winn Bldg., Minneapolis, Minn. It contains some fine suggestions for teachers and farmers who are interested in studying agriculture. Send for a copy; it is free to our readers.

The faculty is exceptionally strong,—every member having been chosen for his special fitness for the work he has to do. To make up the faculty, the very best specialists have been chosen from the best Agricultural Colleges, Farm Journals, Experiment Stations, and the Department of Agriculture of the United States.

Certainly agricultural lines present wonderful opportunities not only to the farmers but to those who prepare themselves to teach practical scientific agriculture. We extend our best wishes to the American Farmers' School and call our readers' attention to their announcement on another page of this issue.

Remington Typewriter Expansion

UTICA, N. Y., Jan. 16.—Announcement is made of the completion of plans for the enlargement of the manufacturing facilities of the Remington Typewriter plant at Ilion, N. Y., and new building operations will begin at once. This action is necessitated by an unparalleled demand which has compelled the Remington Typewriter factory to work overtime for several months with many of the departments operating day and night.

The typewriter has always been called, "The Barometer of Trade," and this increased demand for typewriters is therefore the best possible evidence of the growing activity of general business throughout the country.

Foes with Allies

Life is in great danger when threatened by foes that have allies in the very elements; when attacked by them, it is a struggle for existence.

Among these foes at this time of the year are the grip, pneumonia and diphtheria.

At the risk of telling our readers what they may already know, we will say that as a guard against these foes, these diseases, prevalent now, Hood's Sarsaparilla is entitled to the greatest confidence. It builds up and fortifies the whole system.

Smith Premier Models

The Jury of Awards at the Brussels International Exposition has awarded the first grand prix to the Smith Premier typewriter over all competitors. The jury at Brussels was made up of experts from all parts of the world, but 50 per cent of its members were Belgians. This is the first time that the new model 10 visible has been exhibited in a great world's show for a prize in competition with all the leading makes of typewriters and the success in winning the first grand prix is the highest possible testimonial the company could have.

There were 14 or 15 of models of the machines exhibited and many devices for showing the mechanical construction of the Smith remier, including a mechanical doll for showing the removable platen feature. They also had a greatly enlarged model showing the type-bar action and an "exercising" machine by which type keys are operated at the rate of 1,080 strokes per minute, showing such perfection in construction that type-bars would not collide even at that high speed.

Calling Them Up

"Shall I go and call them up,—

Snowdrop, daisy, buttercup?"

Lisp'd the rain; "they've had a pleasant winter's nap."

Lightly to their doors it crept,
Listened while they soundly slept;

Gently woke them with its rap-a-tap-a-tap!

Quickly woke them with rap-a-tap-a-tap!

Soon their windows opened wide,—

Everything astir inside;

Shining heads came peeping out,
in frill and cap;

"It was kind of you, dear Rain,"

Laughed they all, "to come again;

We were waiting for your rap-a-tap-a-tap!

Only waiting for your rap-a-tap-a-tap!"

Rest and Health to Mother and Child

Mrs. WINSLOW'S SOOTHING SYRUP has been used for over SIXTY YEARS by MILLIONS of MOTHERS for their CHILDREN WHILE TEETHING, with PERFECT SUCCESS. It SOOTHES the CHILD, SOFTENS the GUMS, ALLAYS all PAIN; CURES WIND COLIC, and is the best remedy for DIARRHCEA. It is absolutely harmless. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.



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and through life

All Women Need

the occasional and timely help afforded by a natural family remedy—proved to be gentle and prompt in action, unfailingly effective, and absolutely harmless. Thousands of women the whole world over have found just the needed help—and a veritable boon in

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A few doses have wonderful effect for good upon the whole system—purify the blood, clear and beautify the complexion—brighten the eye—relieve headache, backache, dull feelings and other troubles—invigorate tired-out nerves.

At any druggist, 10c., 25c.

The special directions in every box are very valuable to women wishing to be and to appear their best.

THE PERFECT PURITY of HAND SAPOLIO makes it a very desirable toilet article; it contains no animal fats, but is made from the most healthful of the vegetable oils. It is truly the "Dainty Woman's Friend." Its use is a fine habit.

Spring Medicine

There is no other season when medicine is so much needed as in the spring. The blood is impure and impoverished—a condition indicated by pimples, boils and other eruptions on the face and body, by deficient vitality, loss of appetite, lack of strength.

The best spring medicine, according to the experience and testimony of thousands annually, is

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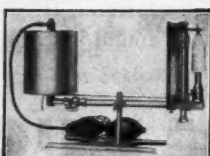
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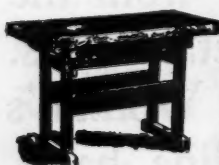
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Schools of Ontario

The Province of Ontario, with a population of about 2,250,000, has 5,869 elementary public schools of the non-sectarian, non-racial class, with an enrollment of 399,670 pupils and an average attendance of 237,933, employing 9,020 teachers—1,767 men and 7,253 women—who receive an average yearly salary of \$624 for men and \$432 for women. Average experience of teachers: Men, ten years; women, nearly seven years. The expenditures were as follows: For schoolhouses and sites, \$1,229,724; for teachers' salaries, \$4,320,268; all other purposes, \$1,632,242; total, \$7,182,234.

There were 145 high schools, including 42 collegiate institutes, employing 795 teachers, with an enrollment of 31,912 pupils and an average daily attendance of 19,862. The average annual salary paid to teachers was: Principals, \$1,430; assistants, \$1,074; an average for all high-school teachers of \$1,139. The highest salary paid is \$3,500. Expenditures for all high-school purposes were \$1,385,832, or \$43.42 per pupil enrolled. The difference between a high school and a collegiate institute is, in substance, that the latter is entitled to certain provincial money grants over and above that granted to high schools. The collegiate institute must also have a specialist over each course taught. Each has four courses: (1) Commercial, requiring two years; (2) general, requiring from two to three years; (3) teachers' (normal), requiring from three to five years, and (4) matriculation, requiring from three to five years.

There are also thirteen of what are known as continuation schools, which, in effect, constitute an extra grade to the common schools, or rather the first year's work of the high schools, given to certain districts not of themselves able to maintain high schools. These schools had an enrollment of 5,317.

The average cost per pupil, in all the schools, based on enrollment, was \$18.56; based on attendance, \$31.27.

SEPARATE SCHOOLS

The school laws of the Province provide that whenever five or more Roman Catholic families, or five or more families of colored people so desire, they may obtain a separate school for themselves, and while supporting such school they are relieved from contributing to the support of any other common school. In like manner, whenever five or more Protestant families constitute the minority in a given community, otherwise largely Catholic or colored, they may petition for and be granted a separate school.

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Under the head of separate schools, the report shows that there are 465 Catholic schools, with an enrollment of 53,551 pupils, an average daily attendance of 34,257, employing 1,065 teachers. The expenditures for Catholic schools were: Schoolhouses and sites, \$190,029; teachers' salaries, \$323,303; all other purposes, \$248,260; total, \$761,592. Of separate Protestant schools there were but six, with 422 pupils enrolled, and an average daily attendance of 243.

The following works, issued by Isaac Pitman & Sons, New York, have been added to the Supply List for use in the New York, N. J., High Schools: "Pitman's Progressive Dictator," "Business Correspondence in Shorthand," "Selections from American Authors," "Legend of Sleepy Hollow," "Christmas Carol," "Commercial Shorthand" and "Rip Van Winkle."

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